

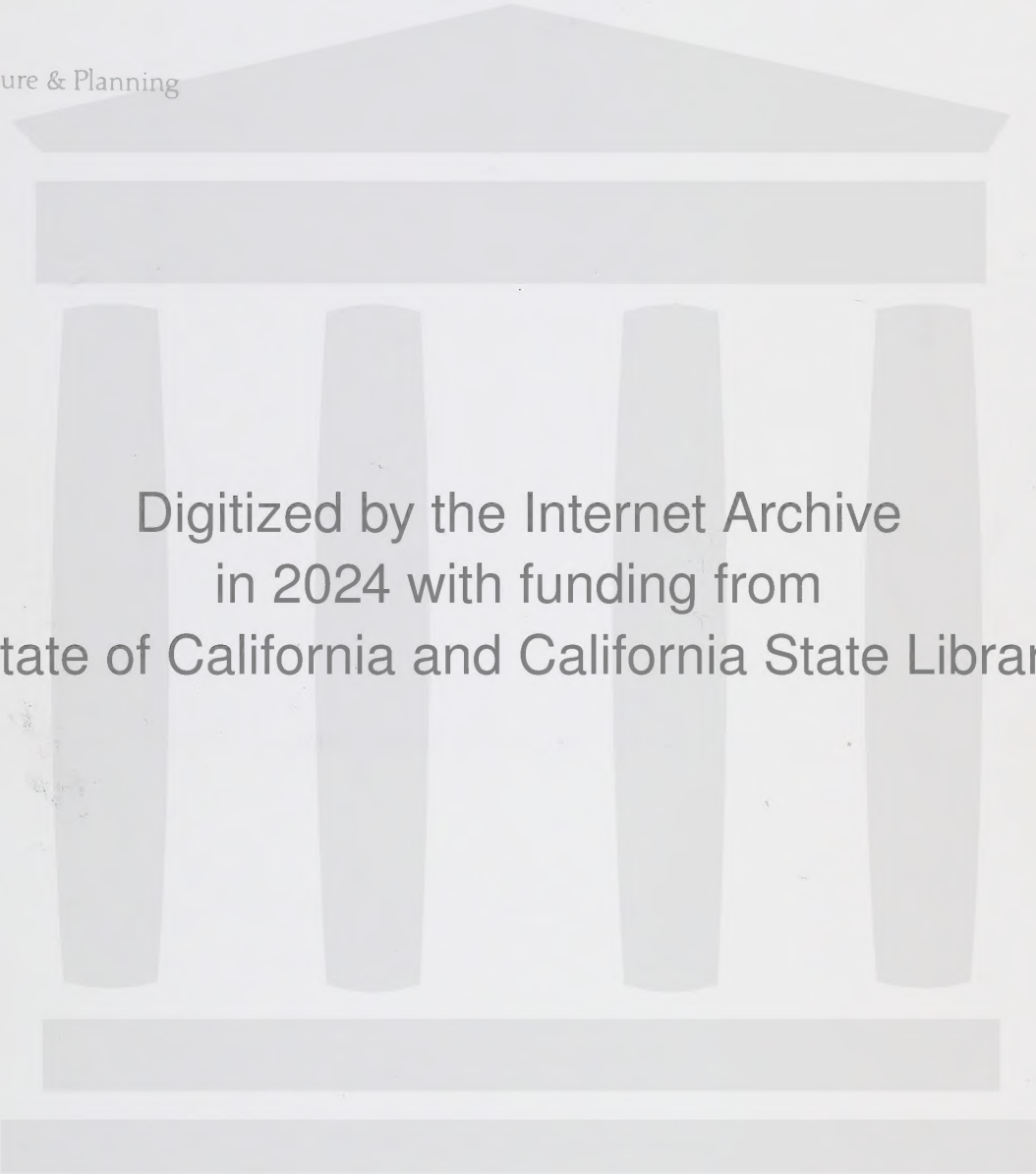
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MICHAEL SOUTHWORTH

CALTHORPE ASSOCIATES
Architecture and Planning



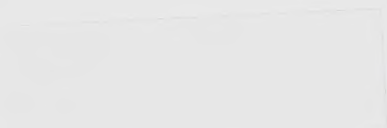
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*America's cities and suburbs are facing a growing crisis;
a crisis of traffic, cost, and livability;
a crisis with profound economic, environmental, and social dimensions.*

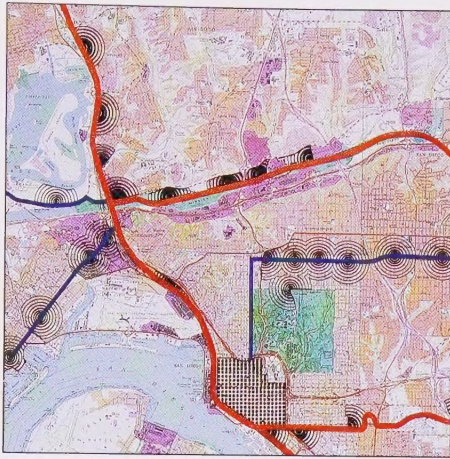
*The solutions involve new land use patterns
which connect now isolated enclaves into mixed-use communities.
Communities which are walkable, human scale, affordable, and diverse.
Communities which re-integrate home and work; transit and auto use;
civic identity and commercial activity; human needs and ecological limits.*

*Calthorpe Associates is a pioneer in this field of planning
for mixed-use, pedestrian-oriented developments.
Newsweek Magazine claims our concepts for cities, towns, and suburbs
have defined a new direction in planning and growth for the nation.*

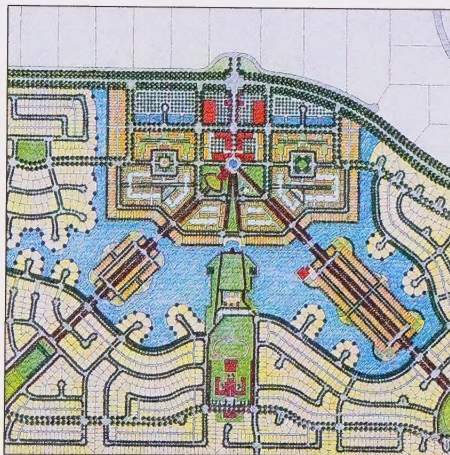
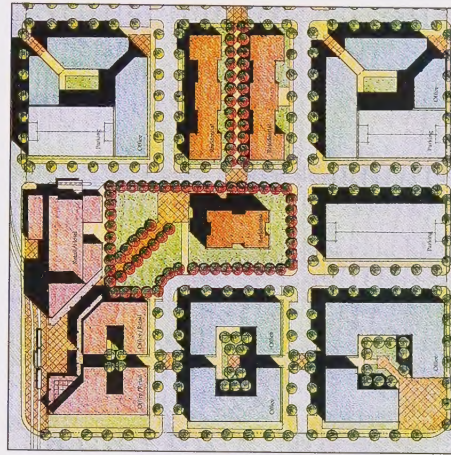
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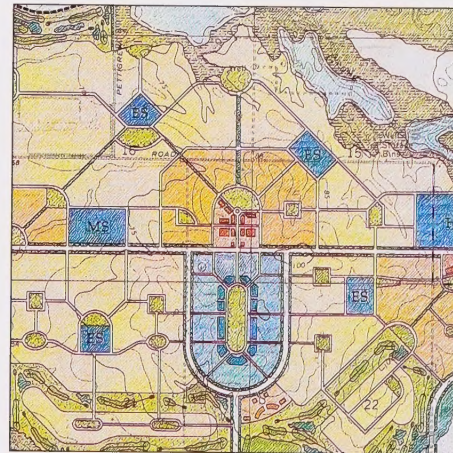
REGIONAL PLANS



STATION AREA PLANS

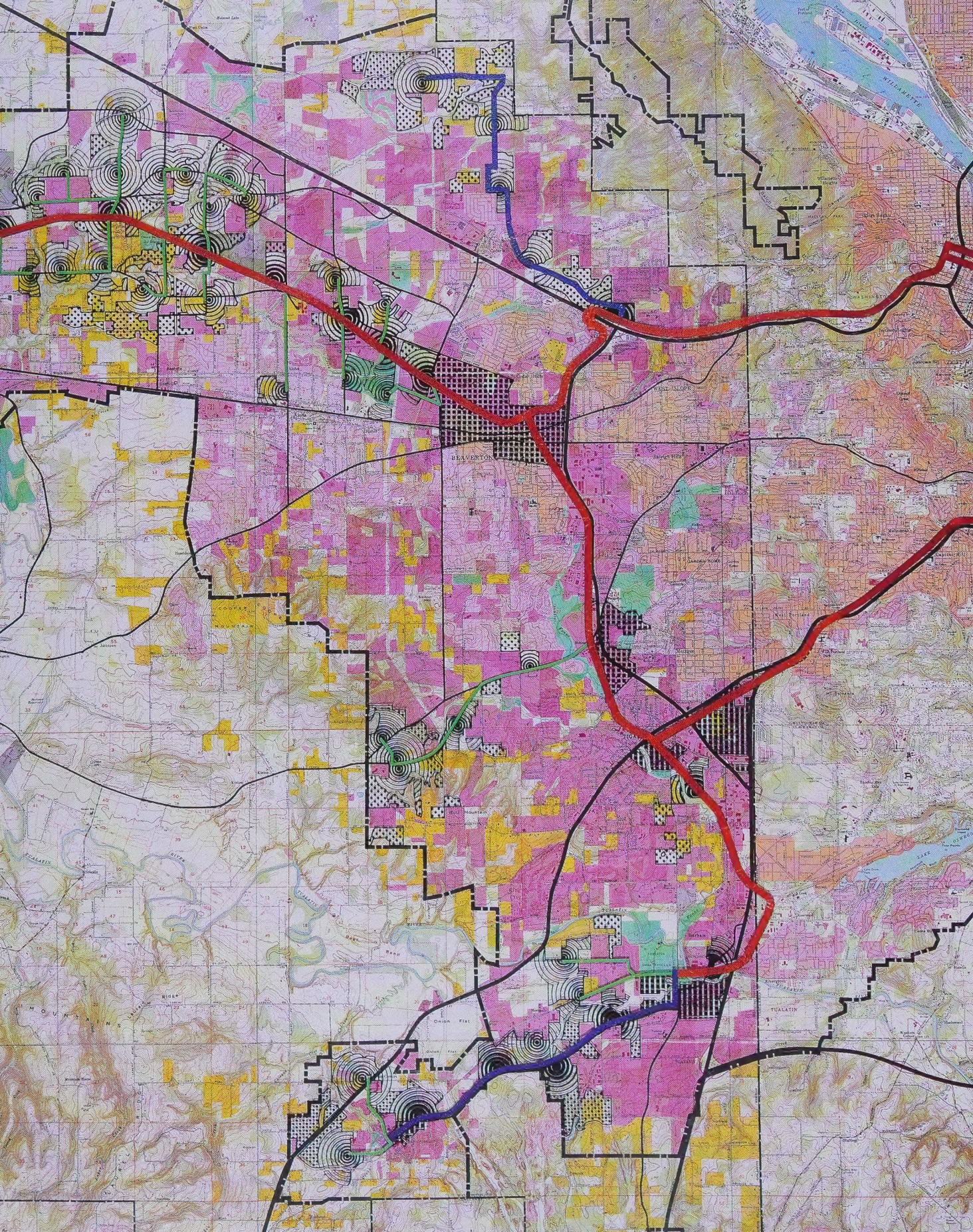


NEW NEIGHBORHOODS



TOWNS AND NEW TOWNS

Retail			Employment
Village Residential			Public
Single-Family			Open Space



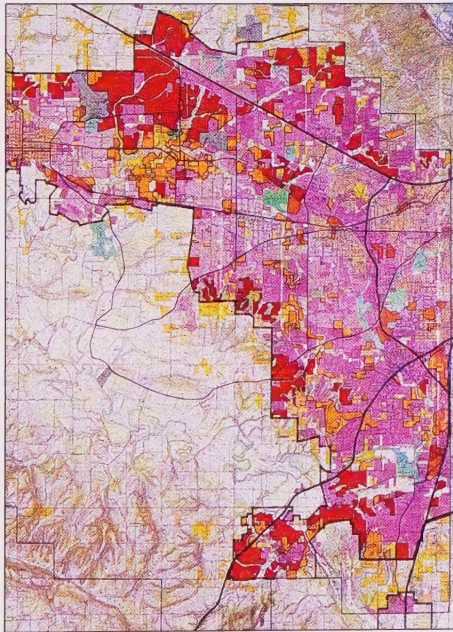
LUTRAQ Making the Land Use, Transportation, Air Quality Connection

Portland, Oregon

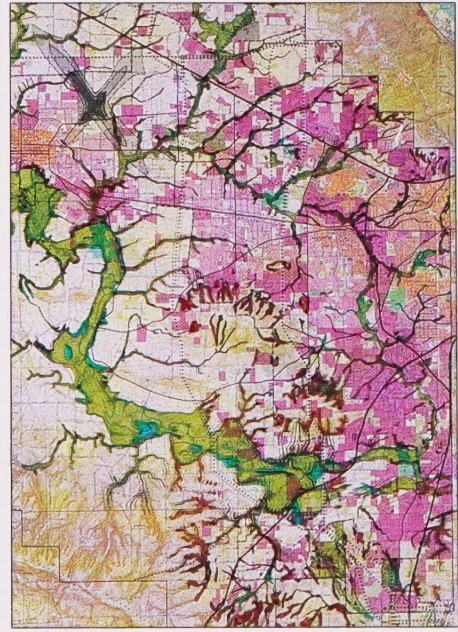
LUTRAQ is a national demonstration project sponsored by 1000 Friends of Oregon, a nationally renowned environmental group that helped create Oregon's state-legislated regional plans and Urban Growth Boundaries. To counter a proposed \$200 million beltway around the west side of Portland that would violate the Urban Growth Boundary, they have supported a study of alternative land use and transit options to demonstrate that more freeways are not the only solution to increasing

traffic. Transit-Oriented Development (TOD) patterns were used to show that land use can effectively reduce auto dependence, increase mobility, minimize air quality impacts, and create more affordable communities.

The LUTRAQ land use plan reallocates a projected population growth of 160,000 in Washington County from standard sprawl into a mixed-use pattern that supports the planned light rail and bus network extensions. The plan simply rearranged the land uses which



Opportunity Areas for development were identified by combining areas within reach of transit with those that had no environmental constraints or viable existing uses. The red areas represent new growth opportunities and the yellow areas have redevelopment potential.



Environmental factors along with existing development helped define the potential growth areas. These open space elements included creeks and streams, flood plains, ridge lands, sensitive habitat, and wetlands.

The alternative land use map for the west side of Portland shows four principle land use types. Mixed-Use Centers are shown in a bold grid, Urban TODs with heavy circles, Neighborhood TODs with light circles, and Secondary Areas with dots. Over 75 percent of all new housing in this proposal would be within one-half mile of transit and configured in a walkable mixed-use community.

were predicted to develop in the next twenty years; the overall density and proportion of different housing types were not altered. Four new types of development were planned: Mixed-Use Centers to urbanize existing downtown areas through redevelopment and infill; Urban TODs at station areas along the planned light rail lines; Neighborhood TODs within a short feeder bus ride of the light rail; and Secondary Areas within a mile of each center. The Mixed-Use Centers and Urban TODs both had an average 15 housing units per acre with high ratios of employment. The Neighborhood TODs had 8 units per acre average and an emphasis on resident-serving commercial. Standard single-family densities were placed in Secondary Areas.



The existing conditions of an area which is about to experience rapid growth in the western part of the Portland region. Note the apartments and shopping center on the upper right. People who live there cannot walk conveniently to the shops because the retail area is walled-off in the rear and bounded by major roads on the other three sides. In the upper left is a creek and in the lower right is a forest which will be preserved.

The most interesting aspect of the study has been the enhancement of the standard traffic prediction computer model. To date, the traffic models have not incorporated the potential benefits of walkable neighborhoods and mixed-use areas, they – in what could be called a self-fulfilling prophecy – only project current travel behavior into the future. The model was enhanced with a “Pedestrian Friendliness” factor and a “Heterogeneity” factor to simulate the impact of neighborhoods that were walkable, had convenient local destinations, and accessible transit. The computer model results show a four fold increase in walking and two and one-half times more transit use.

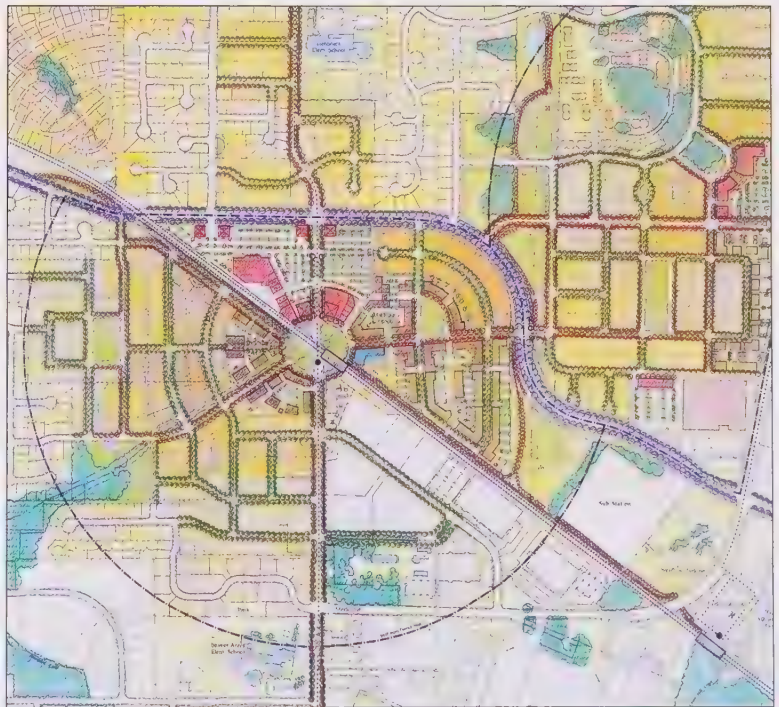


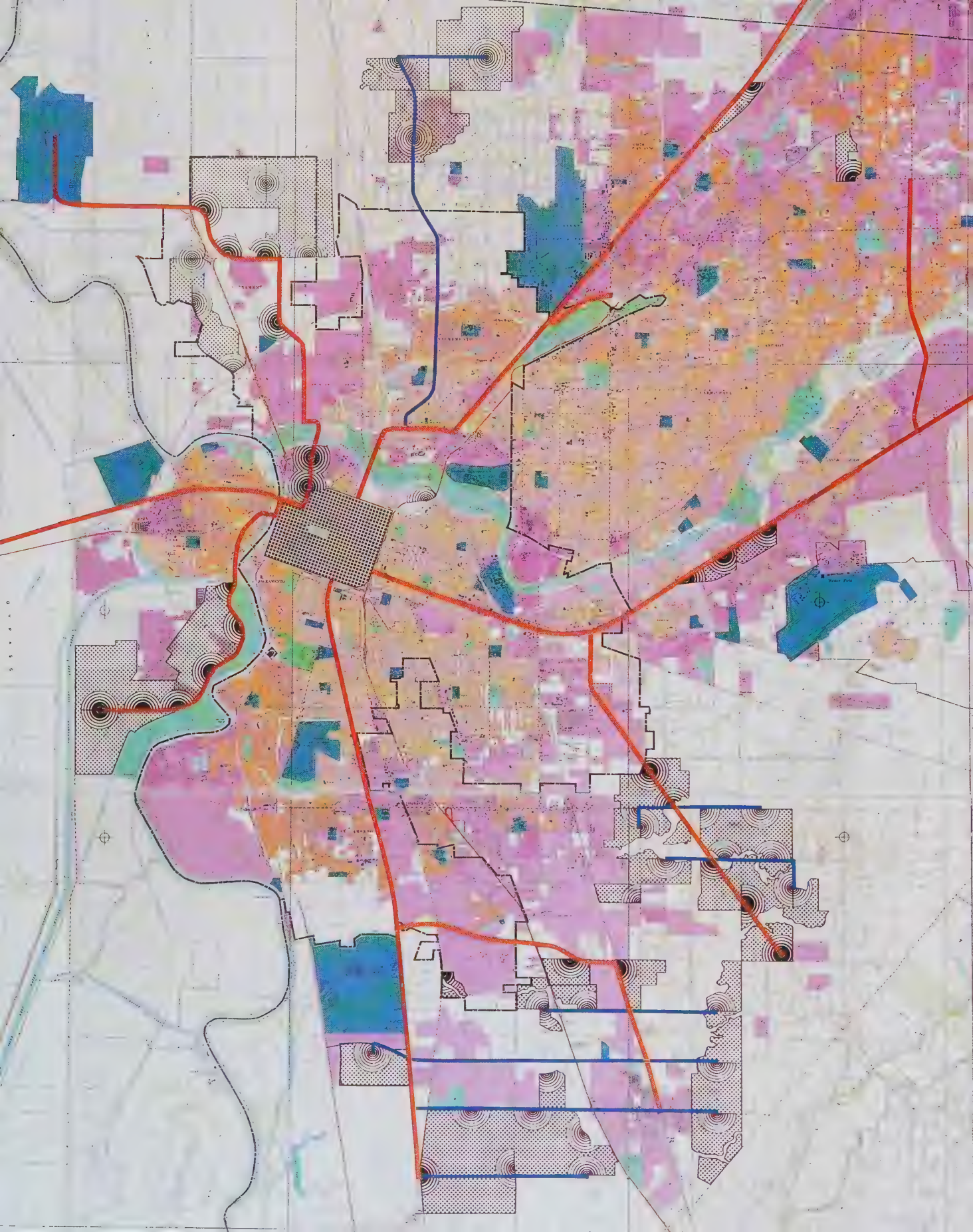
This illustrative plan shows two potential Neighborhood TOD centers, each with a retail and civic focus, a local connecting street network, and a variety of housing types. The large industrial and commercial uses shown are unfortunately fixed because of recent project commitments. Each neighborhood is bounded by a 2,000 foot walking distance or a major arterial roadway. A feeder bus would stop at each center and run to the light rail station one and one-half miles away.

The existing conditions around a planned light rail station show the standard sprawl patterns typical in this area. Fortunately, several of the subdivisions have roads stubbing out into undeveloped parcels that can allow local street connections to the potential neighborhood center and transit stop. The land south of the tracks and to the east of the collector road is currently zoned for office, a use which is appropriate for a major transit station.



This is an example of the type of development which is proposed for a light rail station area. At the station is a village green surrounded by a retail center, cinema, daycare, apartments, and offices. Radial streets connect to neighborhoods of townhouse, small-lot single-family, and traditional single-family lots. Neighborhood parks are within two blocks of each house and an existing elementary school is located at the southern edge of the site. At the upper right is a Neighborhood TOD which is separated from the station area by a six-lane arterial, but will be connected by a feeder bus.





Sacramento County General Plan Update and Southport Area Plan

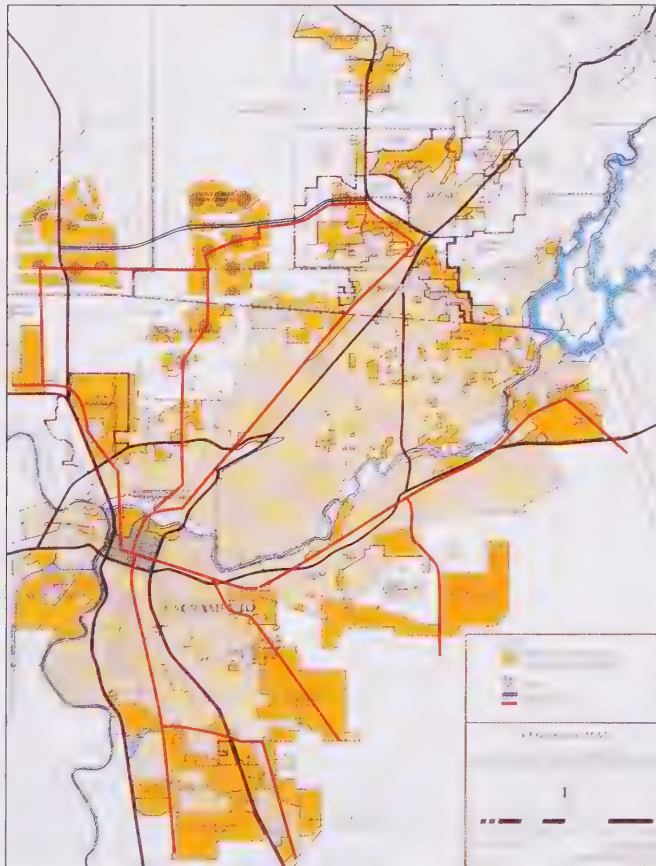
Sacramento, California

Sacramento County is using Transit-Oriented Development Guidelines as a mechanism to implement their updated General Plan. With a projected growth of 270,000 in the next twenty years, Sacramento County is dominated by low density patterns of development and is quickly approaching the crisis of many suburban regions: traffic congestion, loss of open space, loss of affordable housing, and poor air quality. Faced with the clear limits of “more of the same” and a progressive environmental community which advocated an alternate to sprawl, the County’s planners developed a plan based on a new Transit-Oriented Development pattern. A set of TOD Design Guidelines were developed

to augment the single-use zoning ordinances of the previous General Plan.

The new General Plan uses the region’s expanding light rail system to locate major New Growth Areas (see Laguna West and Calvine Specific Area Plan), as well as identify infill and redevelopment sites (see Capital River Park). Each New Growth Area will have a series of Urban and Neighborhood TODs with Secondary Areas. In addition to the designated growth areas, the plan creates an “Urban Service Boundary” which identifies the ultimate limit of development for the county and preserves the Sacramento and Consumes River corridors, along with prime agriculture lands to the south.

(Left) This illustration of the Sacramento Metropolitan Area shows “New Growth Areas” largely in the southern parts of the county and in West Sacramento, along with a significant redevelopment area in the old rail yards of the central city. Each growth area is in a planned transit corridor and is zoned for a mix of Urban (heavy circles) and Neighborhood (light circles) TODs. The area across the river just to the south of the city center is the Southport site, illustrated on the following pages.



A Regional Growth Plan for the Sacramento area covers five counties and seven towns. This map diagrams a growth alternative which expands Sacramento County's New Growth Areas with two satellite New Towns in the north, along with the Southport area in West Sacramento. Each is within transit distance of the downtown and each brings with it a greenbelt which would help secure a regional growth boundary. The light brown represents existing developed areas and the dark brown shows the quantity of development projected for the next twenty years.

Unfortunately, there is no regional entity which can coordinate and enforce the growth boundary in the adjoining counties. The problem for the Sacramento County plan is that these adjacent jurisdictions may become havens for sprawl, as piecemeal growth seeks to avoid the County's mixed-use requirements and the Urban Service Boundary.

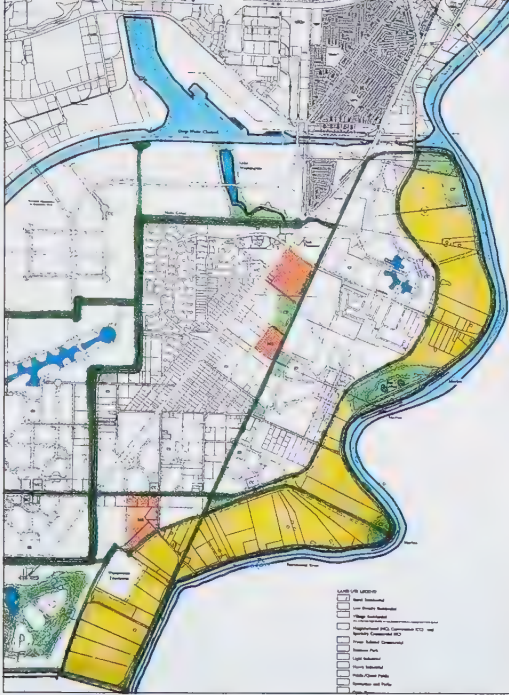
The politics of such a plan are complex and involve a diverse group of special interests: land owners, developers, environmentalists, local neighborhood groups, various public agencies, builders, and the Chamber of Commerce, to name a few. Many of these groups were fearful of change and its ambiguous effects. High on

the list of concerns were the market viability of mixed-use suburbs, the fear that TODs were a Trojan horse of apartment ghettos, and potential changes in the average residential densities county-wide. Added to these concerns were the normal politics of development: where should growth be located, how much development should be planned for, and whether there should be an ultimate edge to the region at all.

The plan below is for the Southport area of West Sacramento. It is an example of the type of development which the County plan calls for in its designated growth areas.



This plan for a 40,000 population increase in the Southport area of West Sacramento was a design competition. The development in the middle of the central axial road existed and the industrial lands along the deep water channel were fixed. Our plan called for six villages on a new light rail line from downtown Sacramento along an open space river edge. Each village would have a different character: several fronting the open space, one with a marina, one near a golf course, and one at the bridge entry.



The open space diagram for Southport shows a major greenbelt along the river. This area is not only prime agricultural land, but a rare habitat for the endangered Swainson's Hawk. The plan envisions a series of villages looking out over the open space to the river.



The circulation diagram shows a network of local "connector" streets which reduce the need for major arterials in the area. This capillary system of roads allows local trips to avoid the major through streets, thereby reducing the size of such facilities. This reduced demand amounted to approximately \$40 million in construction savings when compared to a standard arterial system – equivalent to cost of the proposed light rail system in this area.

An illustrative plan of one of the villages shows the center with transit stop facing the open space and river. A person living in this village would be 5 miles from downtown Sacramento by light rail and would have the convenience of pedestrian access to local shops, elementary school, and neighborhood parks. As in the European countryside, the village would be a stones throw from open space.





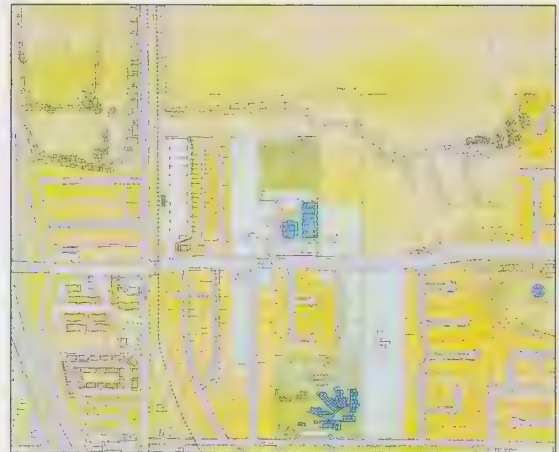
San Diego Design Guidelines

San Diego, California

The City of San Diego, one of the fastest growing urban areas in California, has adopted Transit-Oriented Development Design Guidelines as a key component in their Land Guidance and Urban Form programs. TODs are being used to help the city reduce urban sprawl, plan the urbanized area efficiently, encourage infill and redevelopment, and support the trolley and bus transit system. A particular focus of the guidelines is encouraging infill and redevelopment in existing neighborhoods. In addition to providing design guidelines for site selection, development patterns, and transit integration, the work includes an Implementation Strategy that outlines the steps necessary to fully adopt the principles and specific recommendations of the design guidelines into city-wide zoning, street standards, and other policies.

The process of preparation and adoption of the guidelines was inclusive and very effective. A 40 person steering committee, including a broad range of public and private interests, set the overall direction and then reviewed each guideline individually, giving input and suggesting modifications. The draft guidelines were then tested on three sites by a workshop of citizens, professionals, and City staff. They used the guidelines to design the future development and redevelopment of an existing suburban station area, an industrial zone, and a shopping mall. Finally, City staff presented the ideas, guidelines, and illustrative designs to every neighborhood group and community planning board within the city. This exhaustive input and education process proved successful in both tailoring the guidelines to the unique qualities of San Diego and allowing people to understand the changes that were proposed.

The map to the left illustrates part of the transit area development potential of San Diego's 330 square miles, one of the largest cities in the country in land area. It shows the development and redevelopment sites in the immediate vicinity of the Central Business District, some on existing and planned extensions of the trolley, some on express bus routes. The next extension of the trolley line runs through Mission Valley along the San Diego River – the first TODs site on this new trolley line is illustrated in the Tecolote plan on the following page and the fifth to the east is the Rio Vista West site, a project shown later.



An existing trolley stop south of the city near the US/Mexico border. Note that the stop is surrounded by parking and even residents of the adjacent trailer park have to walk out onto the major arterial and back through the parking lot to get to the station. The lands to the north are designated for regional open space.



The redeveloped site shows a suburban station area with a green, small shops, and a reconfiguration of the trailer park. A new local street network provides direct pedestrian connections to the station north of the major east-west arterial and four local street crossings to the south. The park-and-ride lot is relocated to the west of the tracks.



The University City area of San Diego was planned in the seventies and built over the last twenty years. It is mixed-use and fairly dense, but has no pedestrian quality. This map of an existing area shows how apartments, a major shopping center, hotel, and offices can add up to congestion rather than community. Each land use connects to the six-lane arterial system rather than to one another. Several unused pedestrian bridges fruitlessly span the arterials, connecting one parking lot with another.



This site represents one of the most interesting opportunities the suburbs have to offer: conversion of commercial parking lots into mixed-use developments with parking structures. In this case a regional shopping center's parking lot is infilled with a "Main Street" which has housing over shops on one side and shops on the ground floor of parking structures on the other. This Main Street leads to a new trolley stop at one end and a residential development with a pedestrian bridge and mini-park at the other.

The Tecolote District is a typical older industrial area with many uses which are economically marginal. The area is severely impacted by high traffic volumes and the adjacent freeway. A major influence not show on this map of existing development is the University of California at San Diego, located uphill to the north-east, which would draw students to the new trolley station.



With the addition of a new trolley station directly connecting to the downtown, this industrial area could experience an economic and land use transformation. This illustrative plan shows some of the industrial areas converting to live-work lofts, as has happened in special areas of other cities. In order to eliminate a pedestrian barrier, the major arterial is divided into a one-way couplet – each side lined with lanes for convenience parking. A green surrounded by retail is added at the station and the lands nearest the University are zoned for housing.



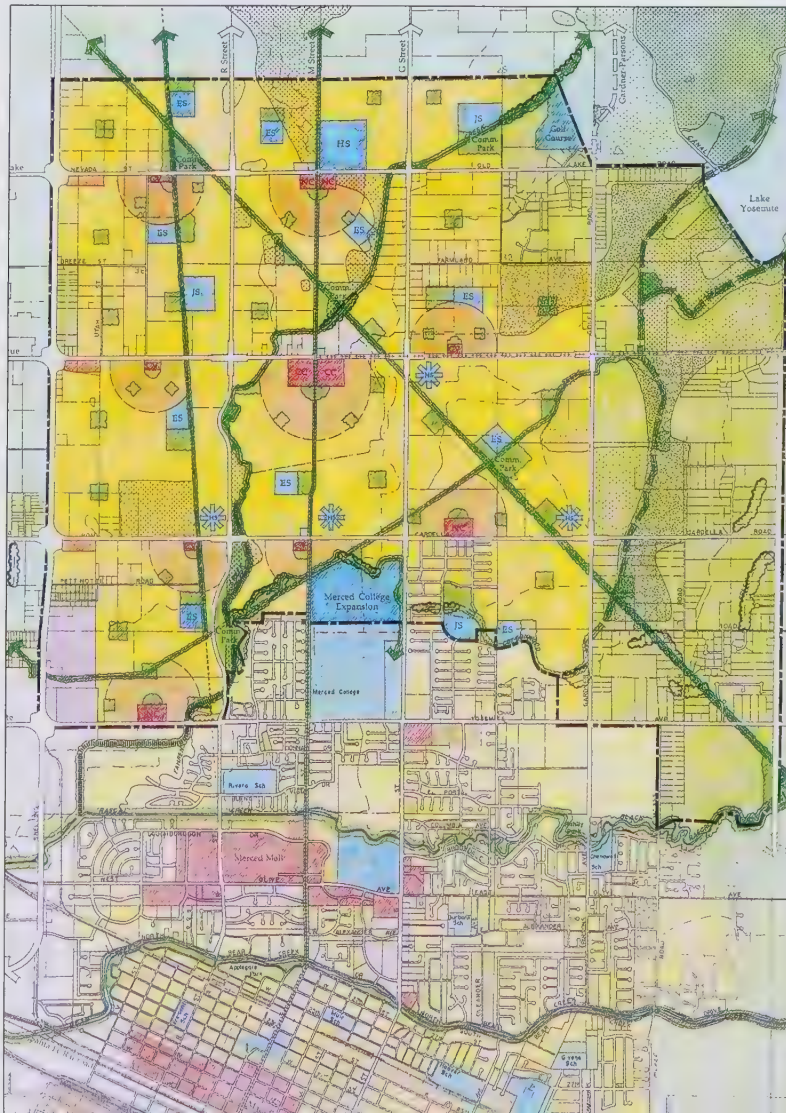
Merced Villages

Merced, California

Merced, population 56,000, is a fast-growing town in the Central Valley of California. Once primarily an agricultural economy, it has recently been inundated with Bay Area escapees looking for affordable housing and a comprehensible community. The overall master plan for the existing and planned sections of the city reveals an interesting progression. Starting with the traditional grid-iron town centered on the railway station, the area immediately to the north exploded with suburban growth in the seventies and eighties. This area, featuring cul-de-sacs and an agglomeration of retail uses, ironically has a lower density than the original mixed-use town, but has the worst traffic congestion in the city. The next

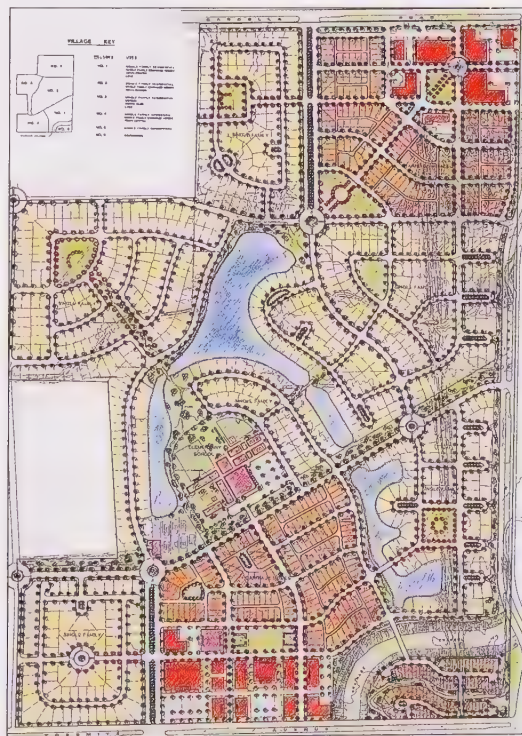
generation of growth would have a completely different form, combining the mixed-use characteristics of the original town with the nodal quality of walkable neighborhoods.

This plan is unusual in that it accommodates a forty year growth demand, rather than the typical twenty year planning period. The City had developed the concept of three new villages to accommodate 75,000 of new population and had laid out a street network which included three expressway status roads and freeway-type interchanges. The redesign of this "three village plan" substituted nine pedestrian villages within an arterial grid – approximately one neighborhood in each 640



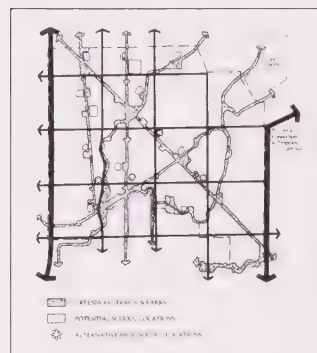
acre section. This configuration, which reduced traffic demand on the arterials, resulted in a circulation system of four-lane streets with surface intersections – a major reduction in infrastructure costs.

A detailed economic analysis rendered a specific program for the amount and type of retail which would be required by the growth area. This retail component was distributed between the nine villages helping to create variety in each. Through the center of the site a new trolley system would be constructed, making those villages on the transit line major community centers. Along with the land use map, the City adopted a companion set of Design Guidelines to direct mixed-use development.

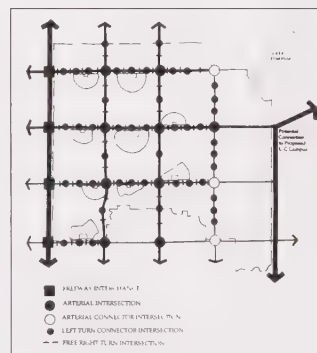


Two of the villages within the overall master plan were designed for a property owner in the southwestern corner of the growth area. Called North Park Villages, the plan shows two retail centers each with a village green and moderate density housing. In the middle a lake, elementary school, and community recreation facility are shared by both villages and the single-family neighborhoods.

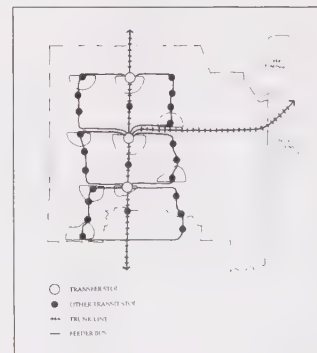
The open space diagram shows a series of schools, neighborhood parks, and larger community parks linked by a set of "greenways" which follow creeks and open space easements, and include pedestrian and bicycle trails. Where these trails cross an arterial an underpass will be constructed.



The circulation diagram shows the primary arterial grid on one mile centers along with the types of intersections and proposed spacing for each crossing. A set of "connector" streets (not shown) would subdivide the interior of each section, allowing convenient local trips by foot, bike, or car to take place without the use of the arterials.



The transit diagram shows the "M Street Transitway" at the center, with three feeder bus loops which would have stops in the outer villages. The transitway would provide direct service to the center of town, to the inter-city rail station, and to a potential site for one of the next generation of University of California campuses.



Atlantic Center

Brooklyn, New York

This master plan represents an often frustrated attempt to direct growth into prime inner-city areas that are well-served by transit, rather than allowing the jobs, housing and activity to be dissipated into the suburbs. Sadly in this case, the project was delayed in court by a well-meaning but myopic environmental group, resulting in the demise of the plan. Questioned on its local air quality impacts, the transit-oriented plan was never compared to the impacts of spreading a similar quantity of development across New Jersey in subdivisions and office parks. Meant as a key component in the general revitalization of downtown Brooklyn, this mixed-use development would have placed 688 units of "affordable housing" and 2.7 million square feet of back office space on 12 acres at one of the region's largest transit

stations, Atlantic Terminal of the Long Island Railroad.

The master plan organizes four-story Brownstone courtyard apartment buildings around a crescent park and along streets which reestablish the lost fabric of a neighborhood decimated by 1960s redevelopment. Office buildings along Atlantic Avenue would shield the residential neighborhood from the adjacent train tracks. Daycare and community centers were situated at the base of the crescent park. Neighborhood grocery stores and small retail stores line the neighborhood's edge, while larger retail facilities were planned near the underground terminal. Two large office towers would have housed the majority of the back office space at the northwest end of the site near the famous Williamsburg Bank Building.





The site is in an historic redevelopment area, between older Brownstone neighborhoods and 1960s-style co-op apartments. Atlantic and Flatbush Avenues are major arterials which border two sides of the site.



The plan creates two centers, one with a commercial focus over Atlantic Terminal and the other a residential neighborhood wrapping around a crescent-shaped park. Between is a multi-purpose building with a major grocery store. The commercial area includes a skylight concourse entry to the station with shopping, entertainment, and restaurants. Two major office building towers centered on an urban park sit adjacent to the terminal and concourse. The residential area features small shops, daycare, the park, and nine courtyards.

The view along Atlantic and Flatbush shows the low-rise "back office" buildings with ground floor retail. The famous Williamsburg Bank building beyond is complemented by one of the two new towers. In order to attract businesses which would have moved to the suburbs, these new towers must have large floors which contribute to their bulk.



San Jose, California



The plan provides for the gradual transition of a 75 acre area directly north of downtown from low intensity industrial and residential uses to a mix of retail, office, and medium and high density housing. Originally the site of San Jose's fruit and vegetable canneries, this Revitalization Strategy takes advantage of its prox-

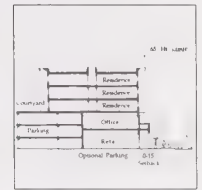
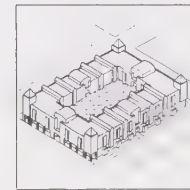
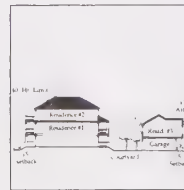
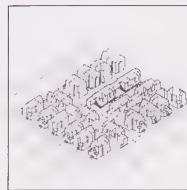
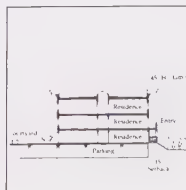
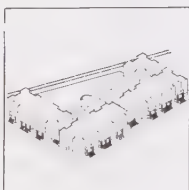
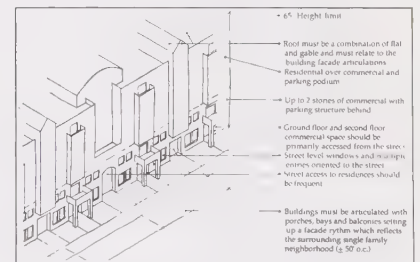
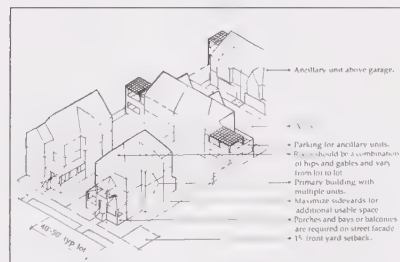
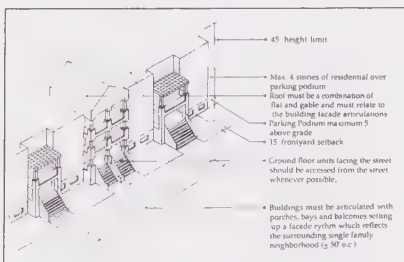
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imity to existing light rail and a proposed on-site BART station to increase housing, neighborhood shopping, and job opportunities. Weaving together two diverse ethnic neighborhoods, several unique development opportunities are provided, such as a Japanese business/cultural center and a local “mercado” for the Hispanic community.

The plan establishes a network of neighborhood parks, plazas, daycare, and community centers connected by comfortable, landscaped, pedestrian-oriented streets. The proposed residential buildings at the site’s edge maintain the rhythm and character of the surrounding single-family neighborhood and provide a sympathetic interface with the surrounding residences. Within this framework, up to 2,100 residential units and over 800,000 square feet of retail, office, and industrial uses are allowed. The plan was prepared for the City of San Jose and included extensive input from neighborhood groups, property owners, and concerned citizens. It is a good example of the TOD concept applied to the redevelopment and revitalization of an underutilized inner-city neighborhood.



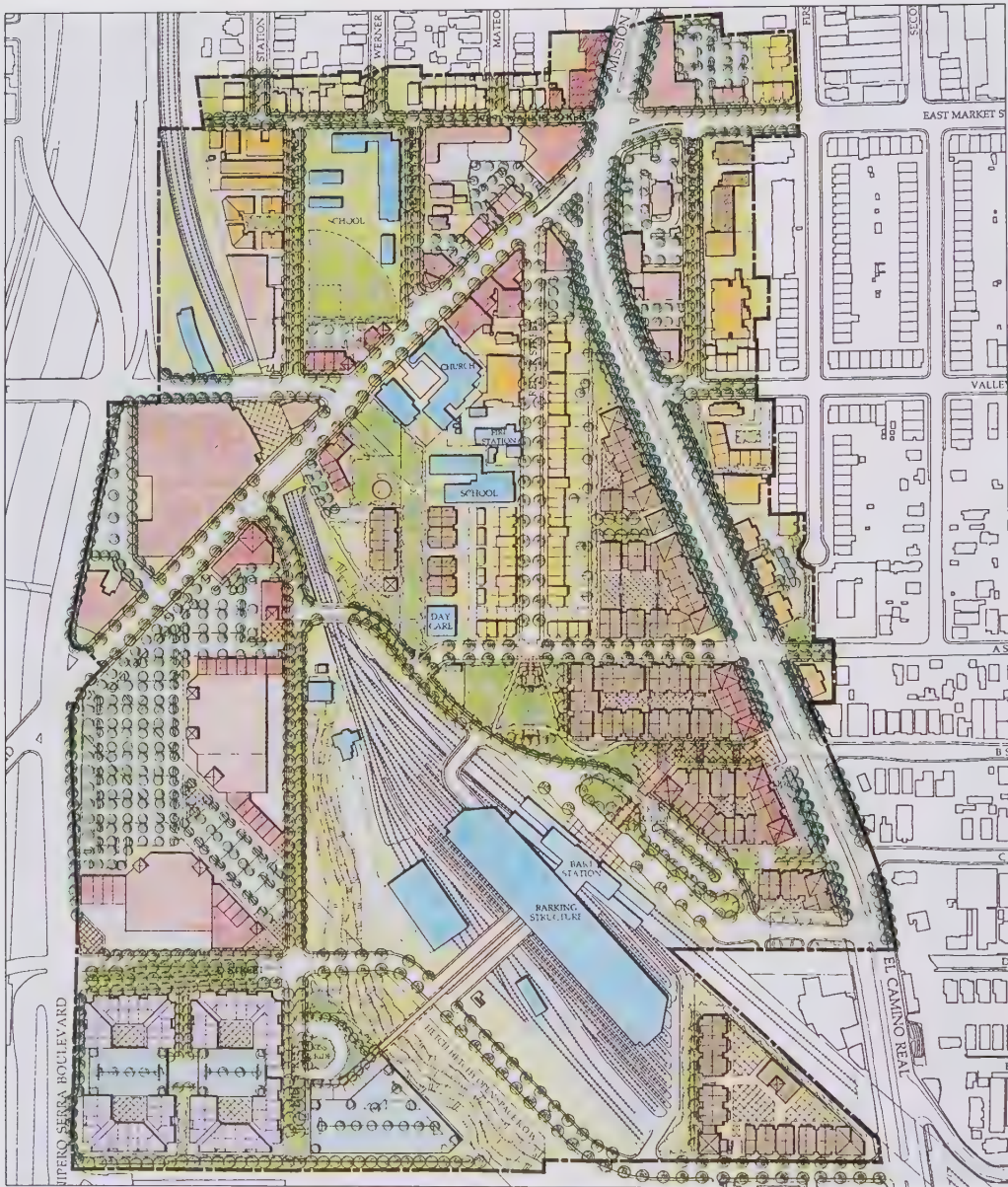
The rail right-of-way through the site would close the loop of BART on both sides of the San Francisco Bay. The San Jose light rail system is shown crossing this right-of-way and running into the center of the city.



Three building types were defined for the site with height, bulk, and density requirements. Each of these types has design guidelines to maintain the urban quality of the neighborhood. The building types range from three unit parcels at the edge (1/5 units per acre), to podium apartments (50 units per acre) and mixed-use buildings on the site’s interior.

Colma BART Specific Area Plan

Daly City, California



The BART station is located over a train maintenance yard that is effectively a channel separating the site into two. The section between the freeway and station area will be dedicated to large-scale retail and office uses. A passenger drop-off area at the foot of the pedestrian bridge west of the station is lined with convenience shops.

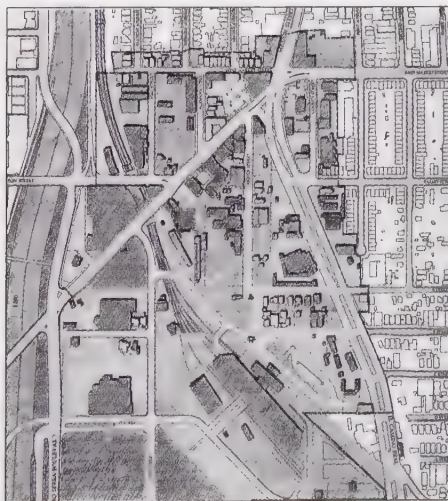
On the other side of the station, the plan integrates high density housing into the scale of the existing neighborhood. The street grid is extended from across the arterial and the internal streets are redeveloped with trees and sidewalks. A drop-off area on the arterial is connected to the station by a grand public stairway.

This project highlights the challenge of coordinating many jurisdictions and property owners in an effort to develop an appropriate level of intensity at what will be a prime transit stop. Two transit agencies, two Cities, a County, and a variety of neighborhood groups were involved in a community planning process which had to reverse previous piecemeal planning, along with many misconceptions about the impacts of transit. An example of negative “special interest group” planning was the BART engineers’ plan for the station itself. Prior to any land use planning around the station, BART finalized a flawed and too often repeated station design: a six-story parking structure on one side and four lanes of bus stalls on the other, completely cutting off the surrounding area. In the engineer’s eye the station is seen as a transfer point only, not as the potential center of a neighborhood or a pedestrian destination.

The intent of the new Colma BART Specific Area Plan is urban “place-making” in what is now a semi-suburban area. The first new BART station to be built in 25 years, the plan for the surrounding area of 110 acres demonstrates how a large region-serving transportation facility can be integrated into a local urban fabric, used to generate new commercial activity, and focus housing demand. The redevelopment in turn fosters

both increased transit ridership and a more vital community. Instead of the barren expanses of asphalt that surround many of the Bay Area’s existing BART stations, the Colma BART Station area will become a focal point for neighborhood activity. It will facilitate transportation options by providing strategically placed pedestrian linkages, commuter drop-off areas, and new roadway connections.

The plan calls for urban housing, retail, and office uses that fit with the surrounding setting and meet demonstrated market demands. El Camino Real, currently a strip commercial street, will transition over time to a grand residential boulevard. To the west, high density housing will terrace with the form of the hills up to and around the BART station entrance. This urban housing will be designed to resemble a series of row houses or small apartment buildings, similar to those in the area now. Entries, bays, and sun porches will dot the facades, reflecting the architectural rhythm of the surrounding neighborhoods. New public parks and plazas will provide important open space amenities for residents. A pedestrian stairway, lined with retail shops, will extend from El Camino Real to the east entrance of the BART station, enticing pedestrians into a unique urban environment.



This existing conditions map shows that the site is largely built out but underutilized, with many buildings in poor condition. The area contains two schools, a major community church, the local grocery store, small shops, and various types of housing. El Camino Real, the historic north-south Mission Trail of California, turns into Mission Street at this point, a symbolic shift from suburb to city.



The site is located just south of San Francisco on the new BART line to the airport. To the south of the site are the major cemeteries for the city, leading inevitably to jokes about the true nature of this transit stop.

STATION AREA PLANS

Rio Vista West

San Diego, California

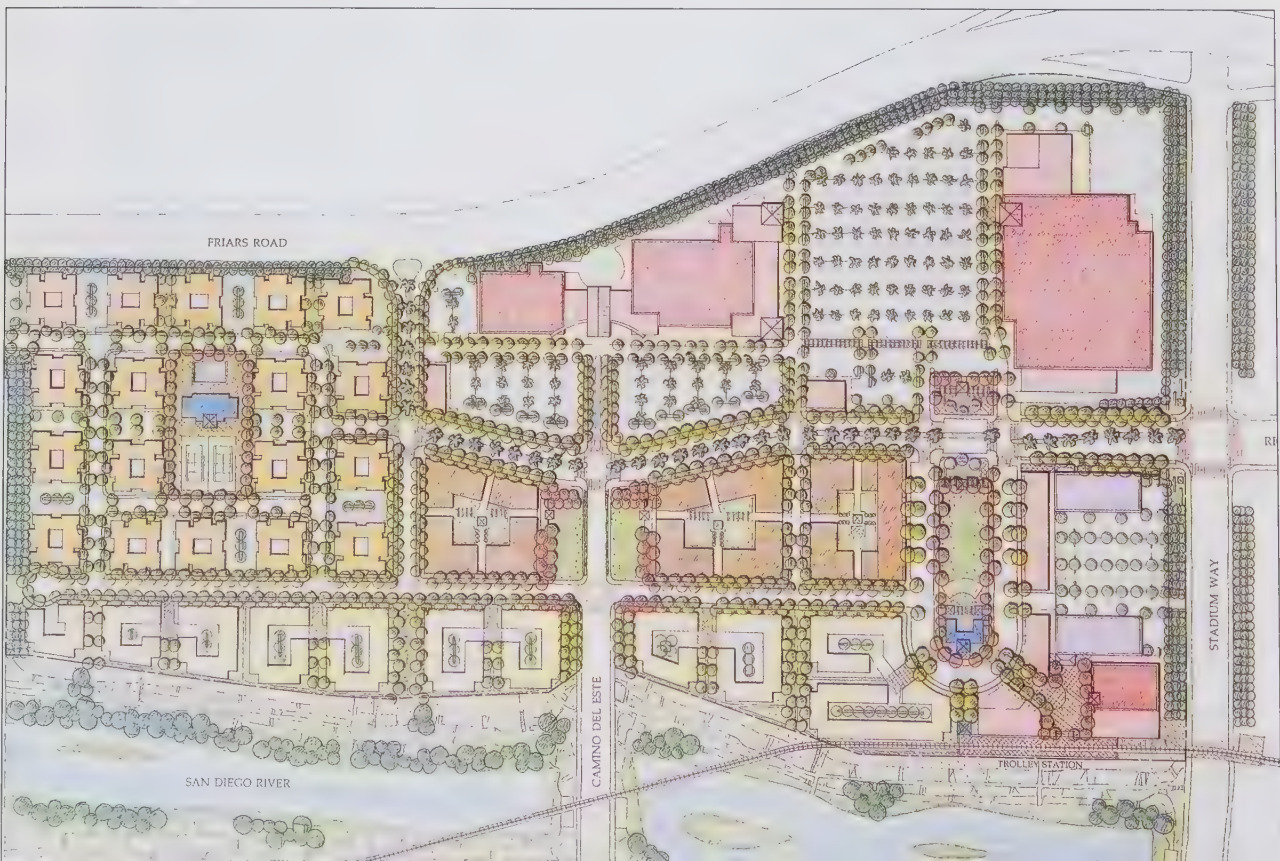
This 74 acre site is one of the first to be planned after the adoption of the TOD Design Guidelines by the City of San Diego. It is located in the fast-growing Mission Valley along the San Diego River on a new extension of the trolley. The plan integrates four primary uses into a new neighborhood: a diverse mix of housing; a variety of retail uses; a mixed-use core area at the trolley stop; and a interconnected sequence of public plazas, parks, and paths. A grid of narrow, tree-lined streets provides direct and pedestrian-friendly connections among the site's various land uses, even extending into areas typically dominated by the car.

The project incorporates three types of retail: regional, neighborhood and specialty. The specialty retail – including restaurants, cinema, major office buildings, and housing over shops – is located at the station. The regional retail component, a 120,000 sq-ft super-store complete with 700 parking stalls, is clearly out of scale with the urban qualities of the neighborhood and is typically an auto-only destination. This is a good example of the hybrid planning which must find

ways to combine the sometimes contradictory needs of transit and the pedestrian with the realities of modern auto use and retail development criteria.

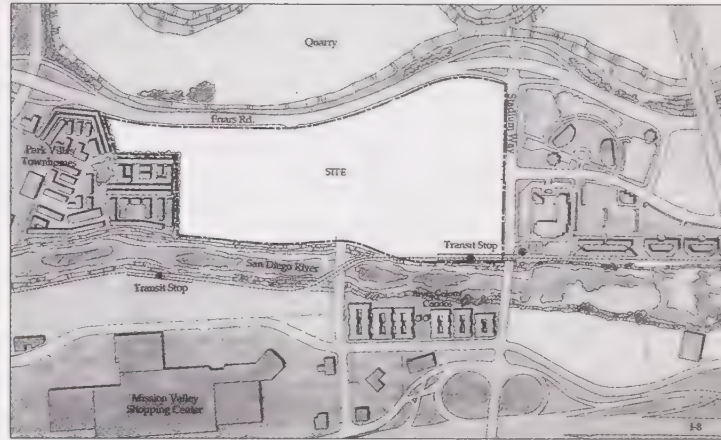
Rio Vista West will contain many types of public space. A trolley plaza will serve transit users and create an active entertainment and office center. The “Crescent Commons” will provide a park with daycare, a trellised amphitheater, and rose gardens while interconnecting the housing, retail, and trolley station. The “Camino Del Este Green” will create a gateway to the site from the south while serving the residential and neighborhood commercial areas. Finally, a series of “paseos” will lead to a Riverfront Promenade that provides an active path along the river.

The plan uses a modified grid of streets, in some cases passing through the larger retail parking lots, as a way of reducing the separation of uses. Along the river are townhouses configured around courtyards, in the western corner are rental apartments, and at the center are podium apartments. Surrounding the Crescent Commons is retail with residential above and two major office buildings beyond. The trolley stop is a plaza just off the park with restaurants, cinemas, and more shops.



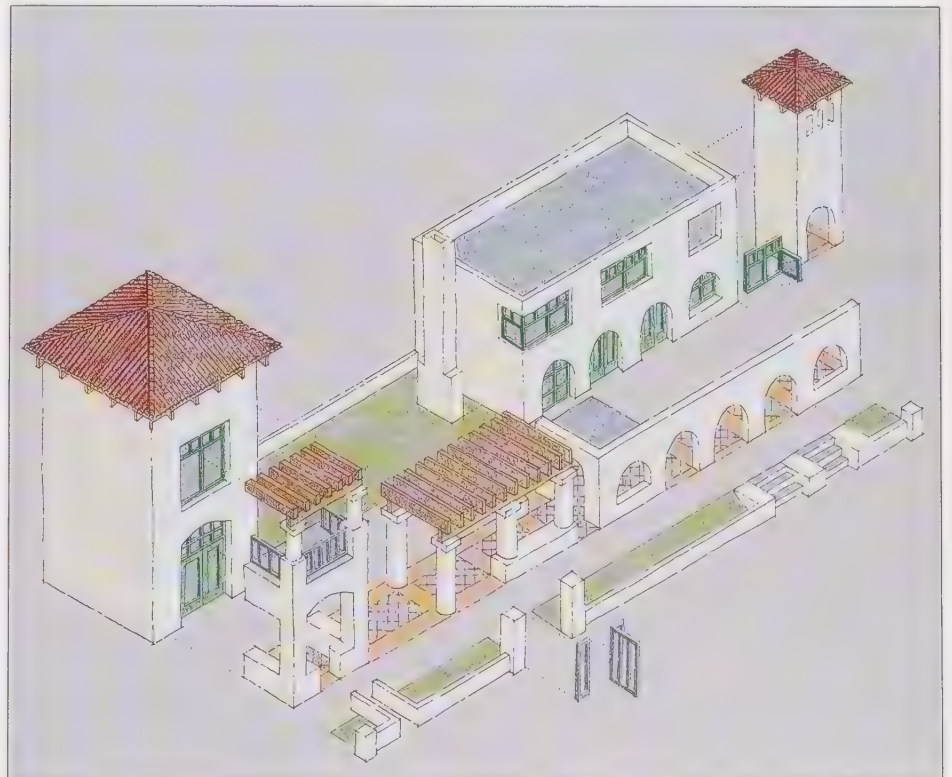


The site is close to downtown San Diego, within Mission Valley. The area is carved up by major freeways and expressways, but features a superb ecological river restoration project.



The site is surrounded by typical suburban single-use enclaves and freeways. The river and trolley line provide an opportunity for a different type of community to evolve on the site.

The plan establishes an architectural vocabulary throughout the project that emulates the work of Irving Gill. This architectural tradition is appropriate to the history and climate of the San Diego region. Strong simple forms are articulated with arcades, trellises, massive walls, shadowed windows, and tile roofs. This dignified architecture will unify the diverse elements of this new neighborhood using a vernacular style that is distinctly of San Diego.



Capital River Park

Sacramento, California

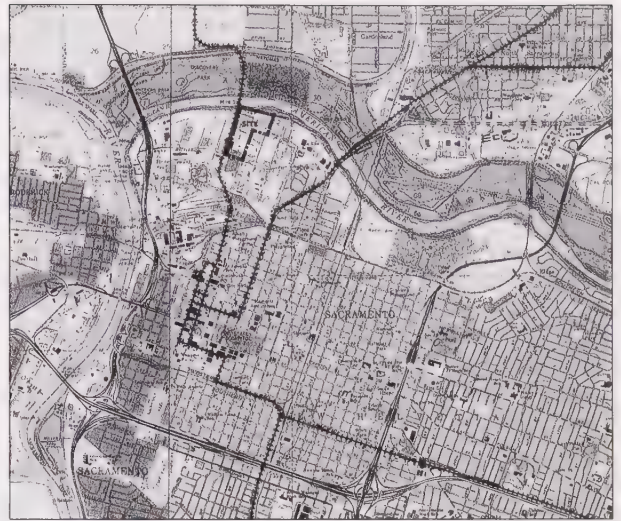
Located on a 51 acre site in downtown Sacramento, Capital River Park redevelops an old cannery facility into a transit-oriented, mixed-use employment and residential center. This is another example of using a growing transit system to organize and locate jobs near the inner city. This site and its surrounding area represents, on a regional level, a prime growth area for certain segments of the housing and commercial development market. Lower density office, industrial, and housing may be appropriate farther from the city center, but high density development in this area, activated by transit, is an essential component of regional growth and diversity.

The site is configured using the old Sacramento grid and block size. Because the area is largely a deteriorating industrial district, four-story office buildings are placed at the edge to protect an inner spine of residential development. The housing is organized around a park in the north and a central pedestrian boulevard which leads to the transit plaza in the south. It is important to line the pedestrian-way with residential uses to provide 24-hour-a-day surveillance and safety. No one likes to walk through an empty neighborhood of offices late at night.

The master plan for this riverfront site proposes 1.7 million sq-ft of offices, 54,000 sq-ft of retail space, a



200 room hotel, and 916 townhouses and apartments in low- and mid-rise buildings. The heart of the project is an “around-the-clock” transit stop which opens onto a major pedestrian plaza lined with retail shops, restaurants, services, and the hotel. A sequence of small public plazas and parks are located along the primary pedestrian spine that links the residential component with the transit stop; tot lots, sports courts, and passive recreation areas are included as public amenities. Buildings orient to the American River Parkway with stairs, ramps, and a bikeway along the river. Capital River Park has the potential to transform an underutilized industrial area into a vibrant element of Sacramento’s downtown.

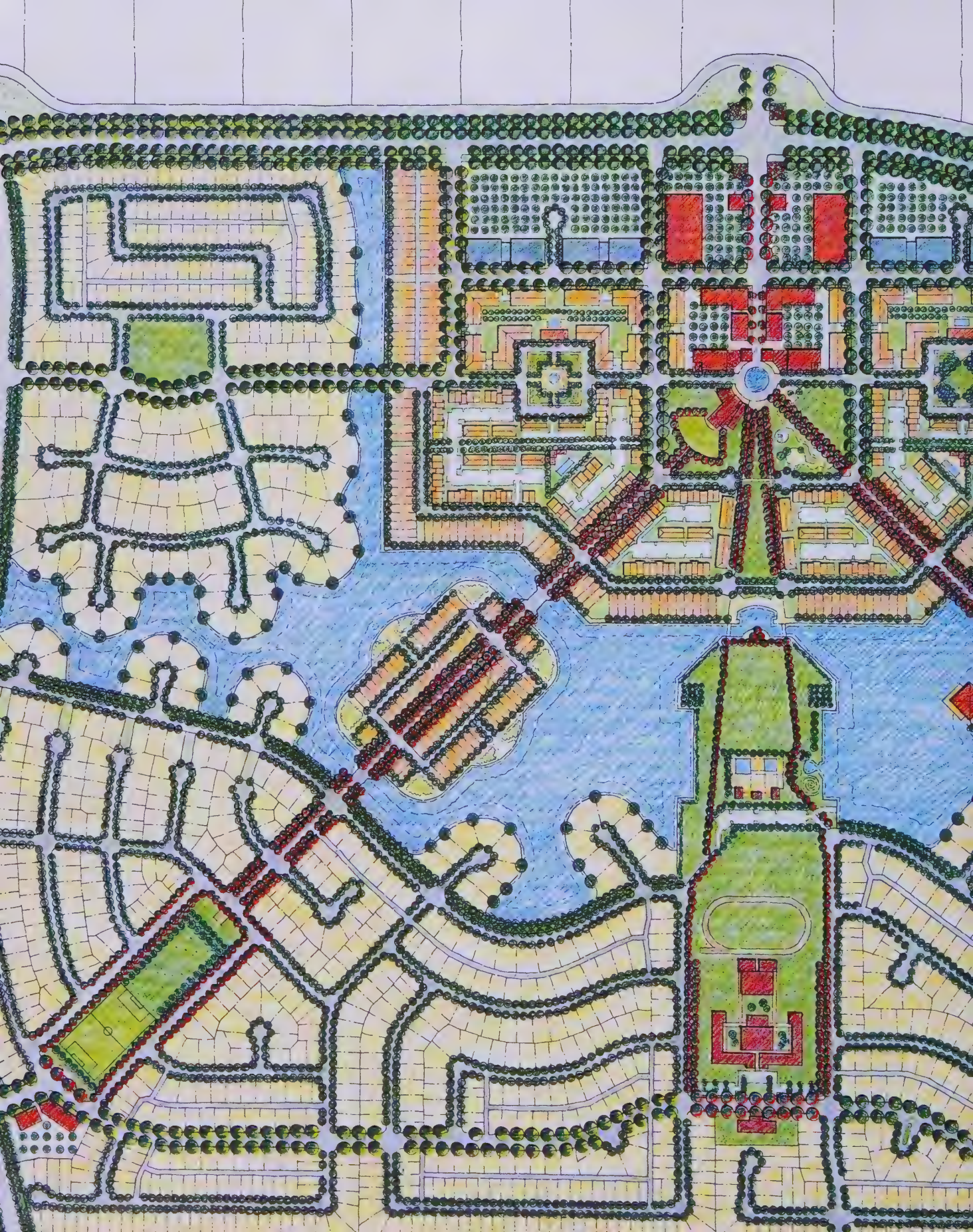


This is an example of the urban infill opportunities that exist around the older sections of our cities which were once dedicated to rail yards and complementary industrial uses. Perhaps it is appropriate that these old rail areas would give birth to a new generation of transit and its complement: walkable neighborhoods.



The old cannery facility, although appropriate for the historic rail and industrial district which once thrived here, is now an economic anachronism given the placement of a new light rail station.

A new city fabric with high densities can develop to match the scale of modern institutions while reflecting the urban history of the place and the needs of the pedestrian. This district is made up of buildings with a different scale and character than old Sacramento’s architecture, but they represent a new generation of urban vitality and economic activity.



Laguna West

Sacramento, California

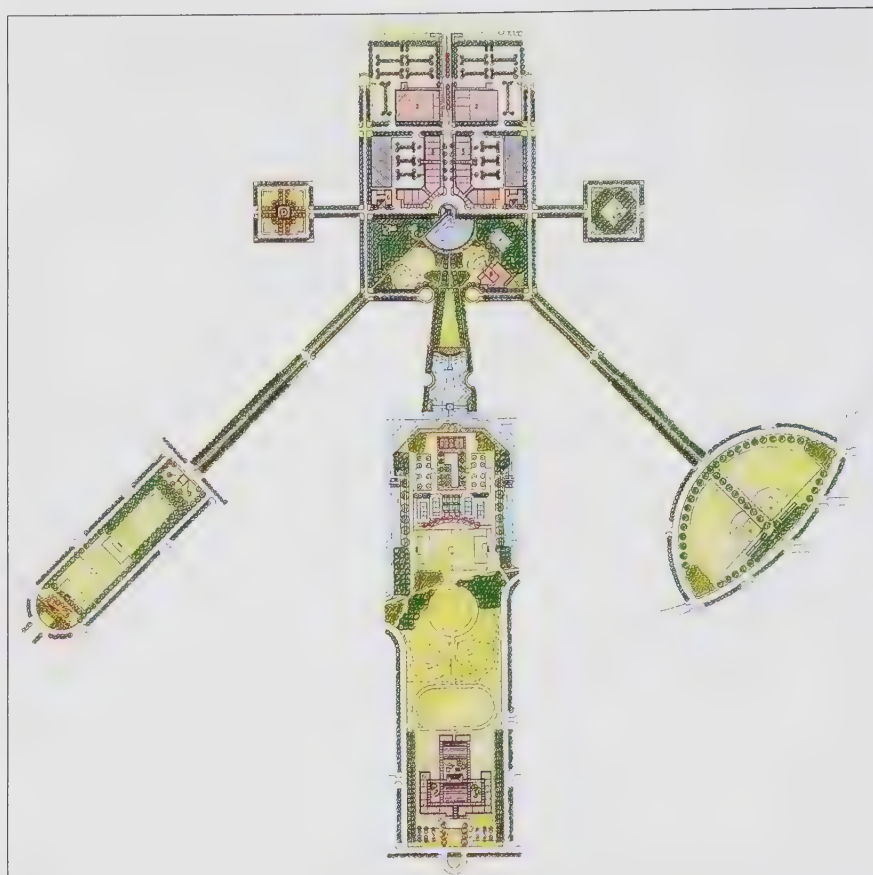


The design of this 800 acre site demonstrates that it is possible to reconfigure the standard elements of new growth – single-family residences, townhomes, apartments, neighborhood retail, offices, civic buildings, and recreation facilities – to enhance community, convenience, and identity. Laguna West is the first “on the ground” test of the idea that these standard elements of growth can be modified and integrated in new ways.

The plan focuses five park-centered neighborhoods totaling 2,300 units onto a 65 acre lake, community park, and town center. The town center combines an additional 1,000 units of higher density housing with shops, offices, a village green, and urban parks. The overall community for 10,000 is designed as a traditional town in which streets are convenient and comfortable to walk, parks form a public focus, and the real life and vitality of a small town life may be rediscovered for all age groups.

The differences in the design of this community are slight and significant at the same time. The streets are narrowed, tree-lined, and connected to the town center, as well as to the arterial. At least 50 percent of the houses have front porches with garages in the rear; some are on alleyways. The mix of housing types and costs are much broader than usual, ranging from custom homes on large lots and traditional suburban single-family houses, through small-lot bungalows and townhouses, to in-law units and apartment buildings. The park system is interconnected, leading to a village green with a town hall common to all. Pedestrian promenades and bike trails border the lake, an amenity typically reserved for high income enclaves. The retail center is integrated with the civic uses and a transit plaza, and will feature a shop-lined Main Street.

In its first year and a half the project has completed over 200 homes, ranging in price from \$120,000 to \$400,000, built the lake, village green, and town hall, and attracted a major employer, Apple Computer Company. This major facility, totaling 450,000 sq-ft, represents a major shift in the suburban status quo – employers are seeking sites in mixed-use communities with transit, rather than in isolated office parks. Both jobs and housing can benefit from sharing facilities (parks, daycare, shops, and transit) which have for too long been isolated and duplicated.



The system of public spaces shown here is the organizing structure of the community, rather than a buffer made of residual space. The town center is located at the terminus of radial boulevards which originate in neighborhood parks. A north-south civic axis is at the center of the plan, containing all the primary public uses. This radial configuration is meant to compensate for a flat, featureless site by creating a powerful focus and a grand scale.



TOWN HALL AMPHITHEATER



APPLE COMPUTER FACILITY



PORCH FRONT HOMES

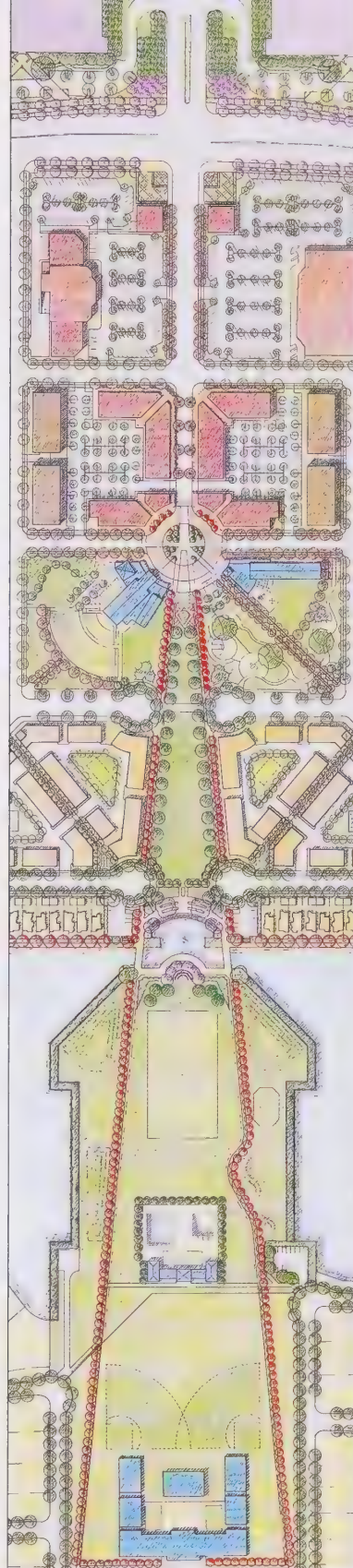


The site is located on the outer fringe of development just below the regional sewage treatment plant. Across the freeway are permanent open space, wetlands, and the Sacramento River. To the east is Laguna Creek Ranch, an area developed in standard suburban patterns just prior to Laguna West.



This street section was designed to slow traffic on the local streets and provide a more complete tree canopy. Tree-wells are located in the parking lanes of the streets.

The central civic axis contains (from bottom to top) daycare, elementary school, community recreation, pedestrian bridges, village green, town hall, transit plaza, retail, and Apple Computer, the major employer at the site. Note the configuration of the retail area: a mix of auto-oriented anchor stores on the arterial and a pedestrian-oriented Main Street off the green. It is symbolic of the attitude of the project that the most valuable property on the site is given over to community recreation and park. This area is the common ground of the diverse households included in this new neighborhood.



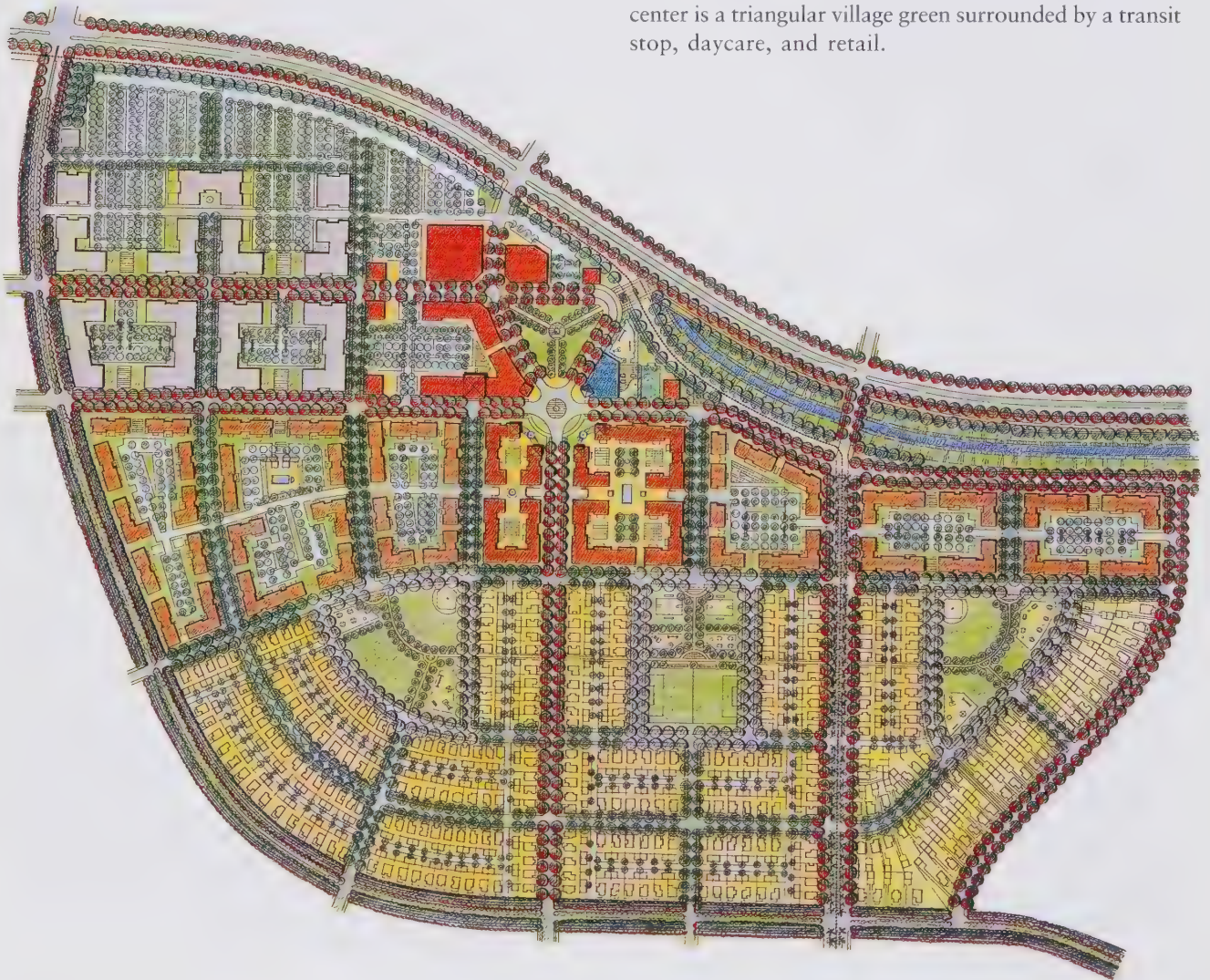
Calvine Specific Area Plan

Sacramento, California

This Specific Area Plan for the County of Sacramento establishes the framework for two mixed-use developments connected to a planned extension of the region's light rail system. The Specific Plan is an important tool in that it provides for integrated neighborhood plans across multiple property ownerships. It also provides for a common Environmental Impact Report and a financing plan for shared facilities. The Specific Plan is effectively an alternative to piecemeal, property-by-prop-

erty development patterns. This is particularly relevant on a site which has 40 different ownerships ranging from two acres to 280 acres.

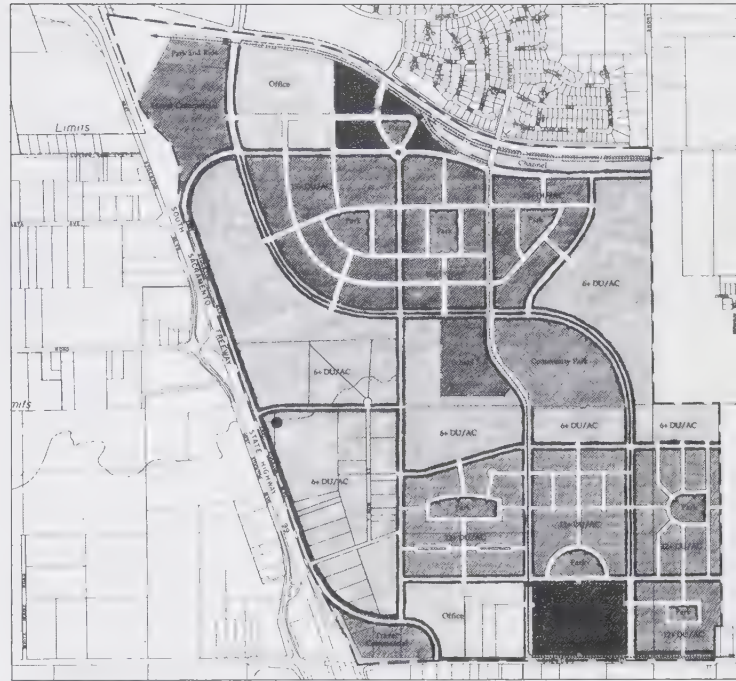
This plan defines a compact and integrated pattern of land use, reinforcing the use of alternative modes of transportation. The design for the northern portion of the site places major office development and an entertainment-oriented retail complex within walking distance of 1,400 homes and a light rail stop. This northern neighborhood has a mix of small-lot single-family, townhouses, and podium apartments. At its center is a triangular village green surrounded by a transit stop, daycare, and retail.



A second mixed-use area in the south of the study area is linked by feeder bus to the light rail stop and will have a community-serving retail complex within a short walk of 1,200 homes. A 20 acre community park and elementary school are located at the juncture of these two compact, pedestrian-oriented neighborhoods. The plan also establishes design guidelines and implementation measures to ensure the quality of development and to respond to specific site conditions such as wetlands, freeway noise, and special traffic needs.



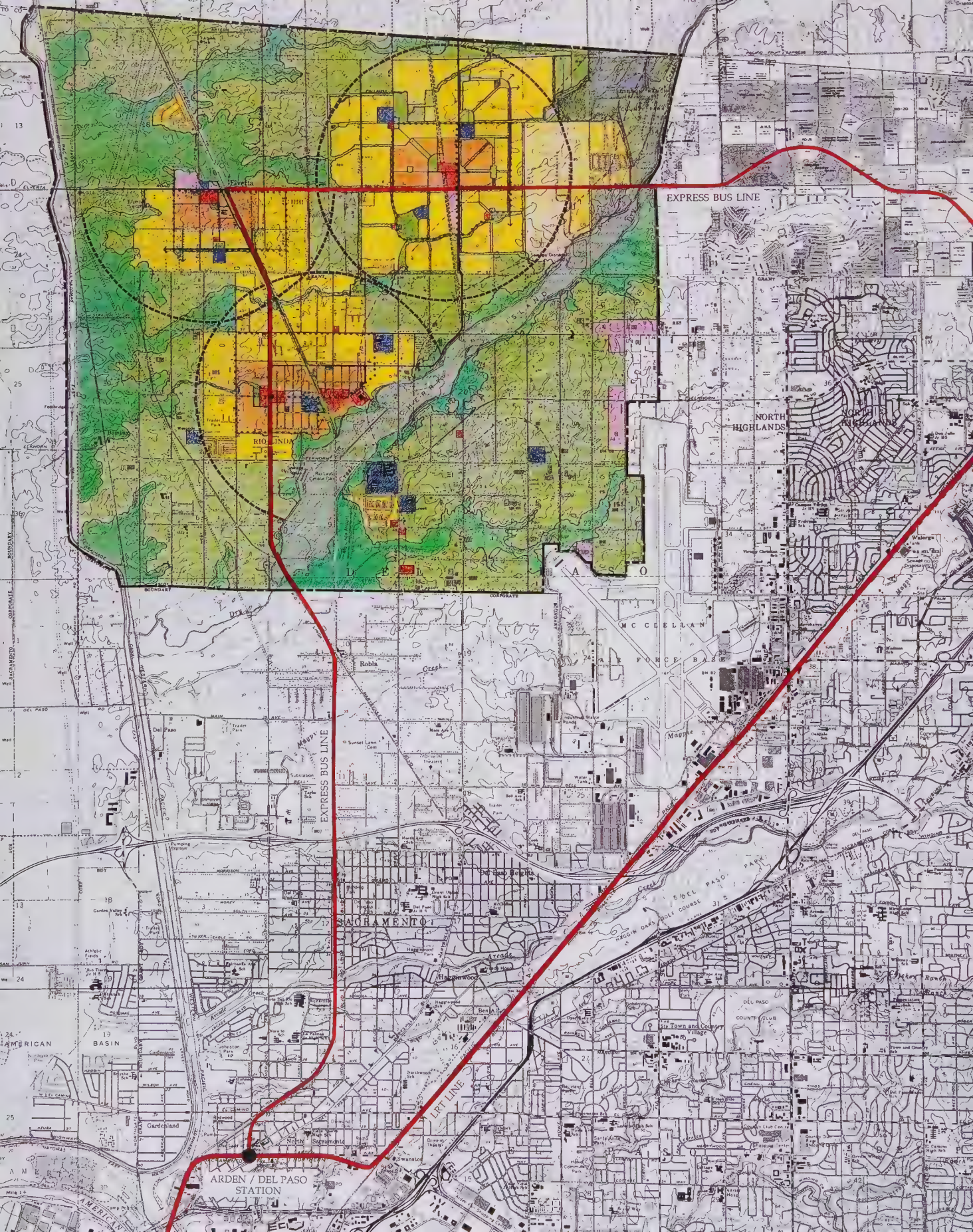
The site is a classic large suburban infill location. Development has proceeded on all surrounding sides. It has the benefit of freeway visibility and access to a new light rail station.



Two neighborhoods develop with a shared elementary school and major park. The area between is traditional single-family housing. The boldly lined streets are "connectors," rather than "collectors."



This diagram shows the placement of four new neighborhoods in relation to the light rail extension planned for this area. Each neighborhood has a street system which provides direct access to the adjacent housing while placing its retail core facing the arterial system. A feeder bus loop connects the neighborhoods to the northern light rail station. The stars represent inappropriate competing retail centers that would be rezoned.



Dry Creek Ranch

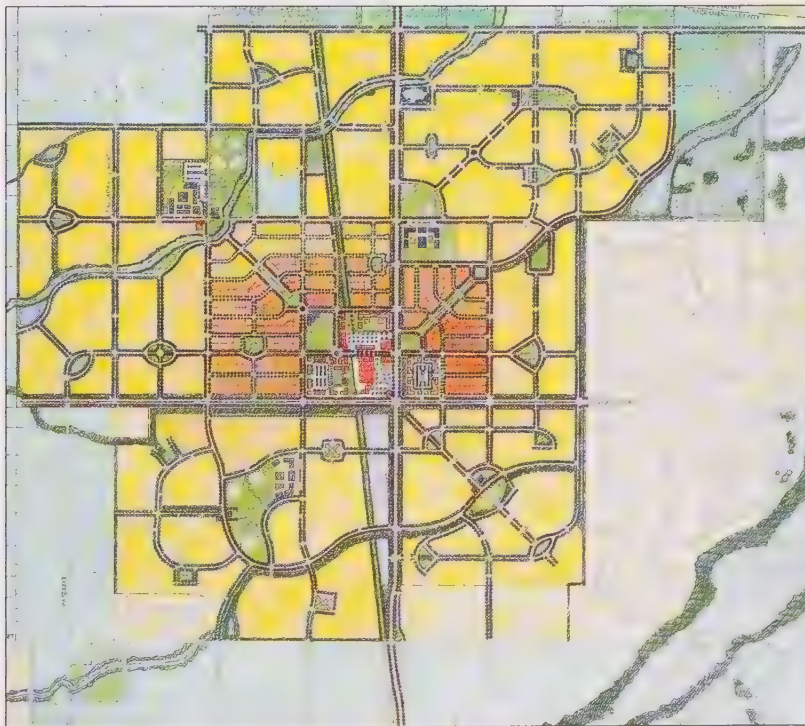
Sacramento, California

This plan demonstrates how a semi-rural area can grow into three distinct villages with greenbelts. The current pattern of development could easily evolve into sprawl in this relatively autonomous area north of Sacramento. Instead, three villages are proposed: one grown from a small existing town; the second a partially new, smaller hamlet near an existing postal facility; and the third a totally new village located to the east on undeveloped land, Dry Creek Ranch. Each would develop on its own timeframe, with its own character and identity.

It is a land use strategy which attempts to balance the need for the area to accept a reasonable share of regional growth, while maintaining the local community's desire to retain its rural character and lifestyle. The proposed plan maintains approximately 75 percent of

the area in open space, flood plain, and low density rural residential development to protect the existing community character. More intensively developed land uses, including retail, employment, and residential areas total 25 percent of the plan area.

The plan proposes that the existing flood plain and low intensity rural residential areas be maintained between each village as a continuous "greenbelt." A network of horse trails and bicycle paths would be located within this rural residential and open space corridor for use by the entire community. These greenbelt trails and paths would be extended into each of the villages. The new village would include a variety of housing types and provide a series of neighborhood sub-centers combining a school, park, daycare, and small country market.



The Dry Creek Ranch master plan encompasses approximately 1,850 acres. The village is structured around a system of open space corridors and tree-lined streets emanating from the commercial core and village green. This system connects neighborhood parks, schools, and community parks with the overall community. A variety of housing types and densities will include design elements which create a small town atmosphere and maintain the rural qualities in the surrounding areas.

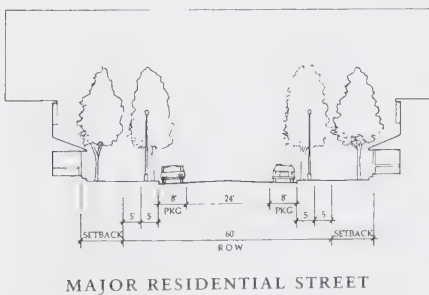
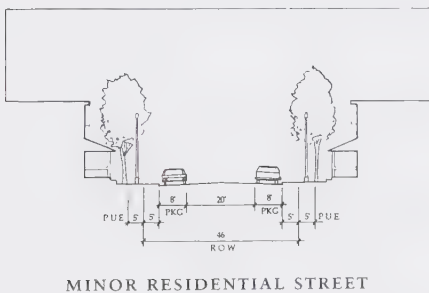
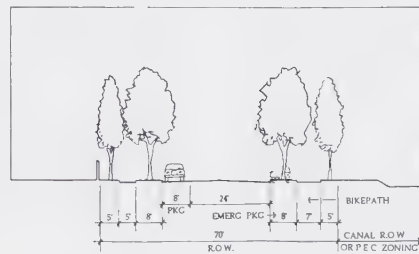
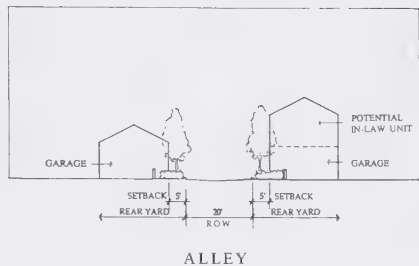
South Brentwood Village

Brentwood, California

At 140 acres this project represents the size of a quarter mile walking radius – and the mix and quantity of uses possible within such an area. Although smaller, denser neighborhoods are certainly possible, this plan demonstrates the diversity and breadth that a suburban site can easily incorporate in a classically walkable area. The new neighborhood focuses on a village green that is surrounded with retail shops, daycare, church, and porch-fronted homes. The project envisions a range of just over 500 new homes, including zero-lot-line carriage homes with alley-accessed garages and ancillary units. Retail stores and offices provide the local households with convenient shopping and employment opportunities.

There are several unique aspects to this neighborhood. First, it incorporates a healthy 30 percent of the site in office and commercial development. These uses line the Southern Pacific railroad tracks and the highway, creating a buffer while enhancing the site as a possible transit stop. Second, the housing is affordable and is being produced by one of the largest home builders in the State of California. This major builder is demonstrating that mixed-use, walkable neighborhoods are just as marketable as their standard subdivisions. Finally, the street system is interconnected, tree-lined and narrow – all atypical for suburban development. These streets and paths will provide the physical and visual connections between parks, homes, and shops.





A variety of street sections will add diversity and identity to the neighborhood. Small mini-parks are distributed around the neighborhood for easy access.



The site is within walking distance of the center of Brentwood, an old farm town with a rail stop which is now becoming a major growth area at the outer edge of the San Francisco Bay Area.



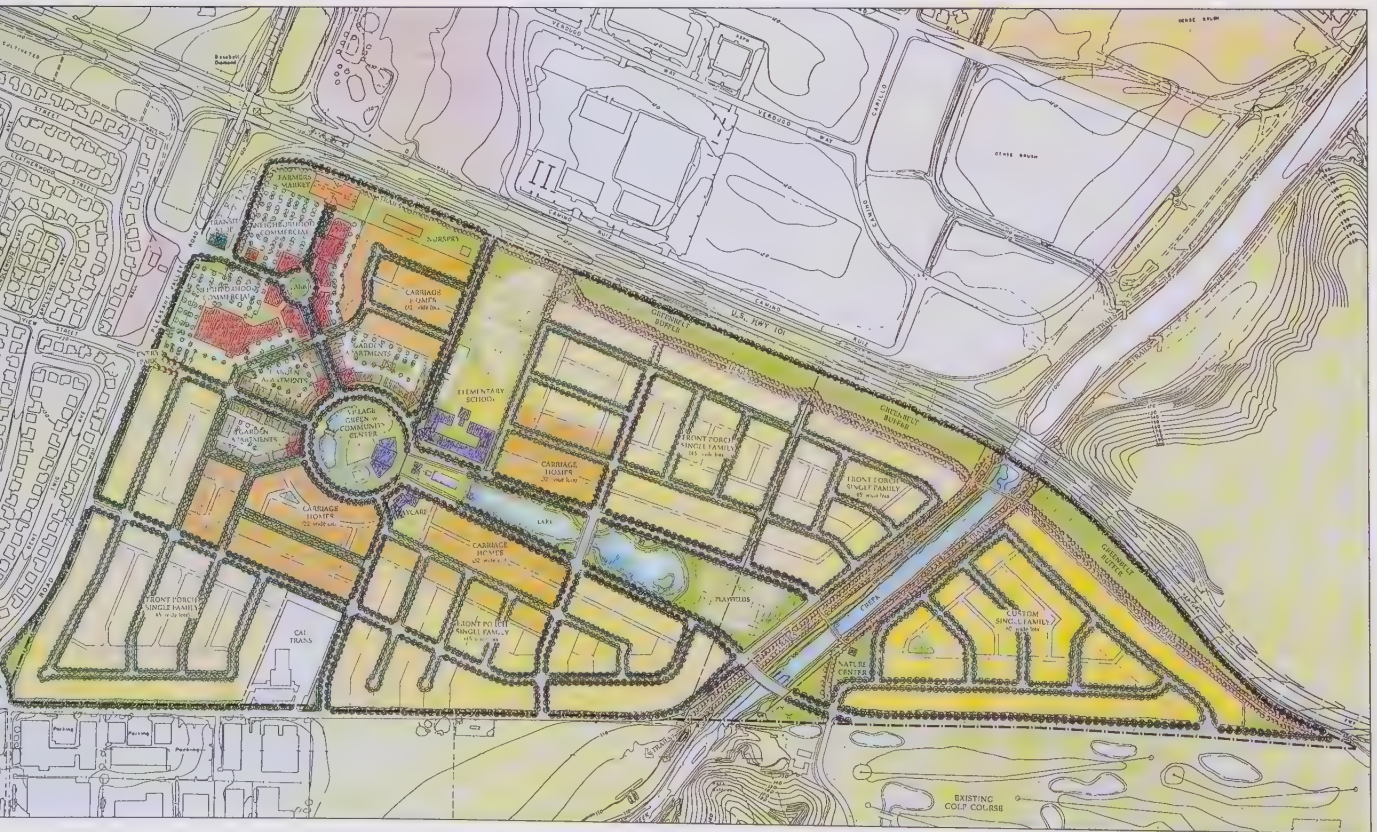
Camarillo Gateway

Camarillo, California

At approximately 250 acres and 1,200 dwelling units, the Camarillo Gateway neighborhood would be brought together around unusually extensive public and civic features, along with convenient and walkable retail areas. Open space, park land, and civic features occupy almost one-quarter of the site's total area. The central focus of the neighborhood would be a village green and community center with a theater, outdoor amphitheater, play areas, shops, cafes, daycare, and elementary school. Extending out from the green would be a 17 acre central park with a lake, boat house, playing fields, nature center, and picnic areas. In addition, an extensive trail system will pass throughout the site connecting the park, Conejo Creek, a greenbelt buffer along the freeway, and trails beyond the site. The commercial

center would focus on a "Main Street" and small park, and will include a farmers market, nursery, shops, and restaurants.

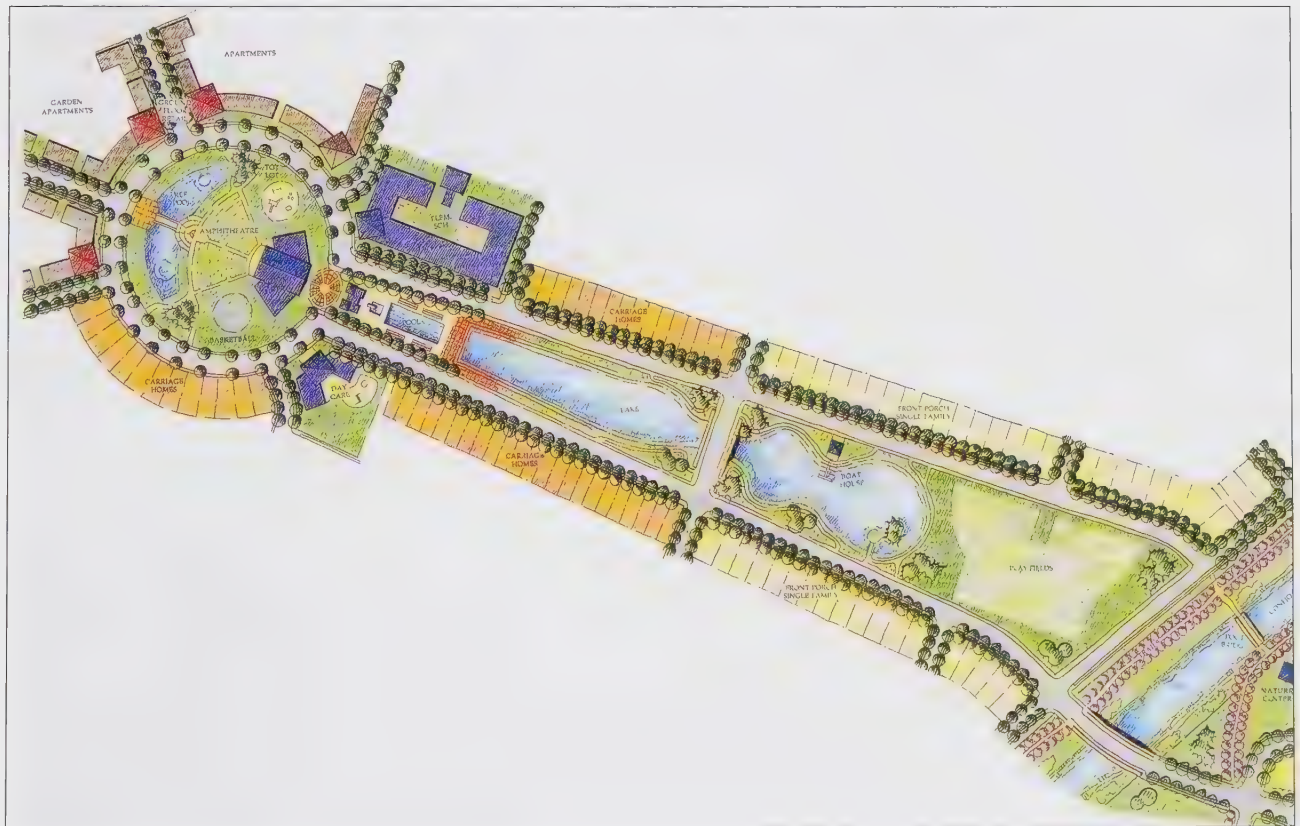
The diversity of the public uses is equaled in the proposed mix of housing types. This mix will provide opportunities for a large variety of people: singles, young families, elderly, large families, owners, renters, and childless couples. Residents and visitors will walk along tree-lined streets, moving easily between homes, schools, shops, recreational facilities, civic features, transit stops, and other uses. The configuration of the neighborhood focuses on three connected public destinations: a linear park, a circular village green, and a retail center. The retail center orients to the freeway with its parking and to the community with a Main Street.



The site is controversial in that it is located at the entry to the town and is presently supporting agricultural uses. However, it is likely to be developed as it is bordered by a freeway and surrounded on 70 percent of its periphery by housing and industrial uses.



The parks and civic center of the neighborhood connect to a local creek and trail system. Its linear form puts all housing within two blocks of open space and recreation.



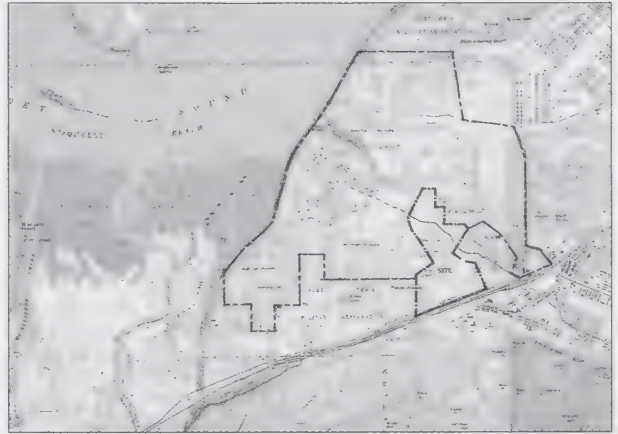


Northwest Landing

Tacoma, Washington

Northwest Landing is important because, like Laguna West, it demonstrated that mixed-use plans are attractive to major employers. State Farm Insurance Company purchased a site for a 2,000 employee facility next to the planned village green. Although they would not configure the building to directly boarder the green, they provided a strong open space connection to it – signifying the importance of sharing facilities and common ground. The Phase One plan is also a demonstration of the hybrid design which contemporary institutions require. Large-scale regional retail is configured to allow adequate parking areas, at the same time that pedestrian arcades form a continuous path from the green. Likewise, State Farm maintains visibility from the freeway while creating a connection to the town center.

The overall plan for Northwest Landing consists of three mixed-use villages located on a bluff overlooking Puget Sound and adjacent to the old company town of Dupont. The 2,100 acre site contains many archaeological and historically significant sites, including Indian settlements and one of the first trading forts in the Northwest. The overall community master plan includes 5,500 residential units, 300 acres of office development, and three “Main Street” retail areas. The configuration of the first phase is ordered around a central boulevard which allows views to the village green. The neighborhoods range from traditional single-family to alley-served cottages, each with small mini-parks.



The site is adjacent to the historic town of Dupont and boarded by the Fort Lewis Military Reservation and Puget Sound, 15 miles south of Tacoma. Dupont was a company town which housed workers in their WWI and WWII explosives production.



The green connects the major employer to the community's retail and housing. Within the park is a daycare center, basketball, tot lot, picnic court, and amphitheater. A grouping of shops and a visitor's center with small offices boarder the green.

Gold Country Ranch

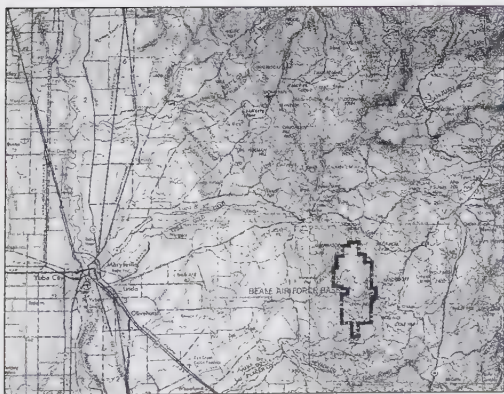
Nevada County, California



The town's variety of housing types and densities will provide new housing opportunities affordable to a broad spectrum of families. The village green is bordered on three sides by commercial and apartments, and on the fourth side by a lake. Above the green is a community college and small-lot single-family neighborhoods. The main commercial area is flanked by office and industrial areas with a golf course. Planned for a population of 10,000, the town would also provide jobs for 8,500.

Gold Country Ranch is a proposed pedestrian-oriented “New Town” in the foothills of the Sierra just northeast of Sacramento. Unlike a satellite New Town, which is directly related by transit to a major metropolitan area, this project is designed to replicate the tradition of small, independent towns which mark this gold rush-era region. A primary purpose of the plan is to absorb growth for the area without compromising the quality of the existing towns. At the same time it seeks to preserve the quality of these towns, it emulates their rural character, historic structure, and pedestrian-scale.

This large land holding is capable of providing internal greenbelts, regional infrastructure, and affordable housing because of its low land cost. The plan for Gold Country Ranch encompasses approximately 1,750 acres of developed land, less than 25 percent of the property’s 7,750 acres. The site is structured around a system of open space corridors and tree-lined streets emanating from two mixed-use town centers (only the northern town is illustrated). This system connects central town squares with neighborhood parks, schools, community parks, and the overall community. The open space corridors within the New Town will contain pedestrian, equestrian, and bicycle trails that connect to the larger preserved open spaces.



The site is in the Sierra foothills approximately 65 miles northeast of Sacramento. The existing town 10 miles east of the site is Grass Valley, an historic mining town of the gold rush era.



The conceptual land use map shows the northern town by land use areas and the southern town hatched. This is a good example of how to fit a town into complex topography. The red area is the town center with a large village green and a community college shown in blue. Two elementary schools are shown in the “Secondary Area,” one adjacent to the village residential area and one farther to the south. The areas to the north of the town center are planned for various types of commercial and industrial uses.

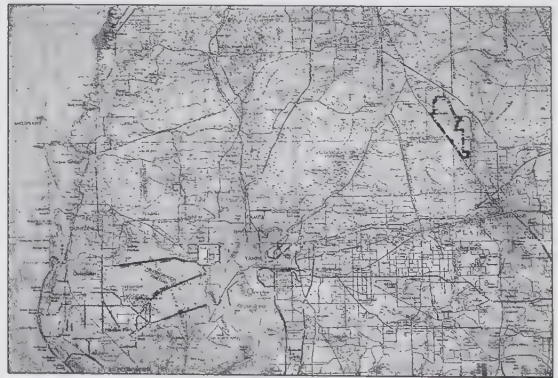
Lexington Park

Polk County, Florida



Located on 10,000 acres in Central Florida to the east of Tampa, Lexington Park is a New Town on a proposed commuter rail line. A series of five villages and hamlets, each with a distinct character, are sited in and around significant wetlands and majestic groves of cypress. These small, relatively complete communities provide a mix of housing types, as well as recreation, entertainment, shopping, services, and employment opportunities. Some of the villages have a major retail core area with cultural and civic facilities for the entire town. Others, called hamlets, are centered on a clubhouse and convenience retail uses.

The villages will be linked to each other by a feeder bus system with connections to the commuter rail line. Even without the rail, the internal mix of housing, jobs and services resulted in a vastly reduced number of off-

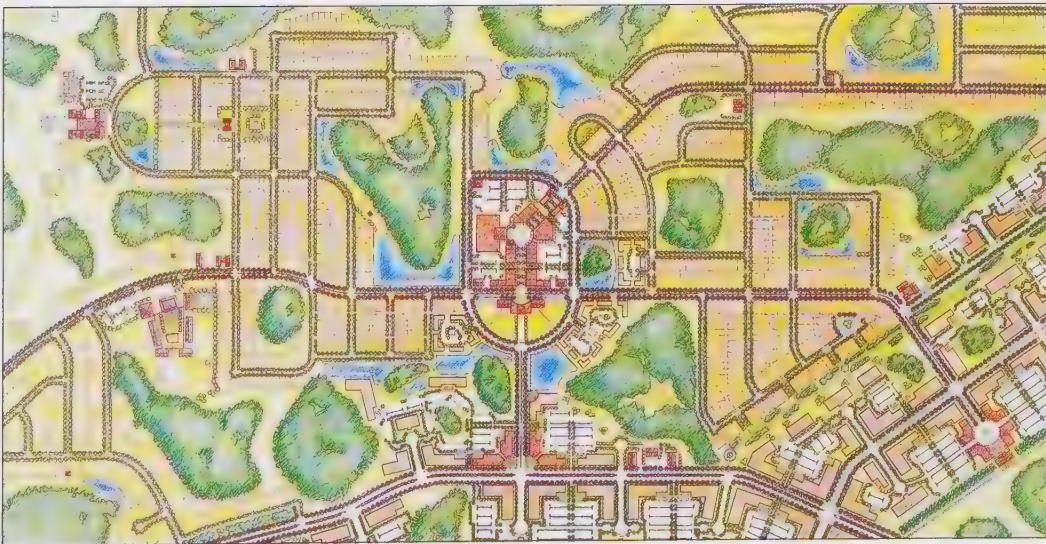


The site is located approximately 12 miles north of the town of Lakeland which is 36 miles east of Tampa. The CRX rail right-of-way borders one side of the site and offered freight as well as commuter opportunities.

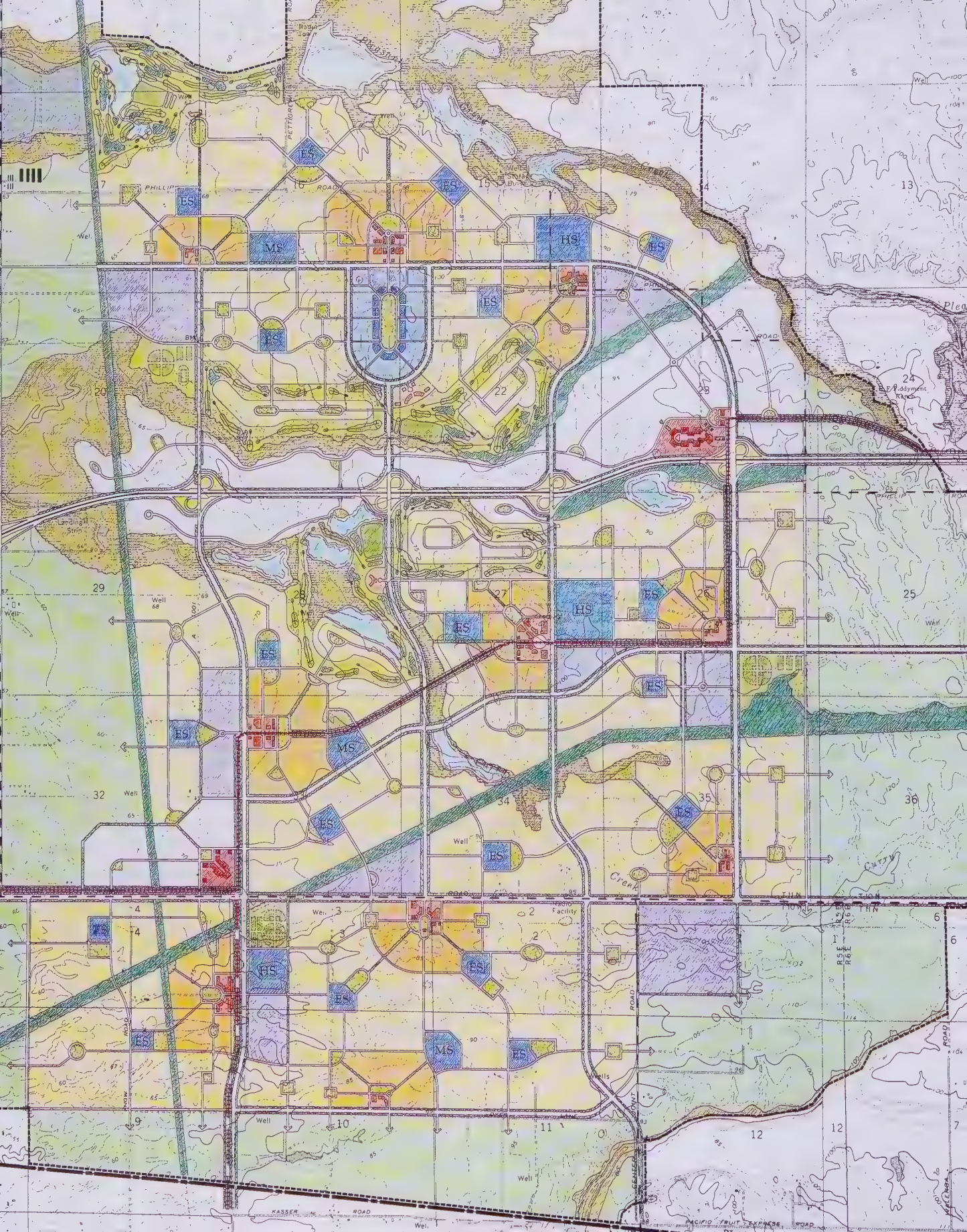
site auto trips. This plan of approximately 20,000 units of housing and 36,000 jobs demonstrates that a mixed-use New Town can create a jobs-housing balance at a scale large enough to reasonably allow a significant number of people to live and work in the same area.

The site is over 60 percent wetlands, of which only two percent were disturbed by the proposed development. Each of the villages used the wetlands both as greenbelts to define separation and as internal open space systems. The challenge was to create an efficient, interconnected street system which also avoided disturbing wetlands. In some circumstances the drainage system doubled as a series of Amsterdam-like canals lined with houses.

A large lake is the focus of this small hamlet, with a school to one side and a restaurant located on a pier at its center. Two small retail buildings near the pier form a gateway to the community.



This is one of the larger villages of the town. A village green, apartments, and commercial complex is at the center, with office and light industrial buildings located one block below. The commercial center is configured with parking to the rear and a town hall at the end of the mixed-use street.



Placer Villages

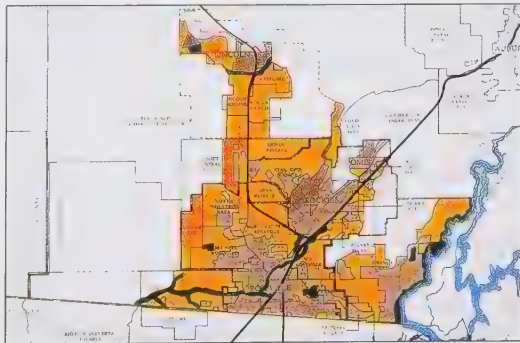
Placer County, California

Placer Villages is a proposed New Town for 82,000 residents on 16,000 acres ten miles north of central Sacramento. It is a good example of an appropriate location for a satellite New Town because it is in a region with a high growth demand (700,000 over the next twenty years), it is within transit distance of the central city, it is on lands of low habitat and agricultural value, and it is well-positioned to provide part of a regional greenbelt. A project of this scale must solve many regional problems to be justified. This one will provide a light rail extension and a bypass expressway to help address regional traffic congestion problems; an ecological water and waste system to address regional water quality and supply; and a diverse and affordable mix of housing types to relieve growth pressure on overburdened existing communities.

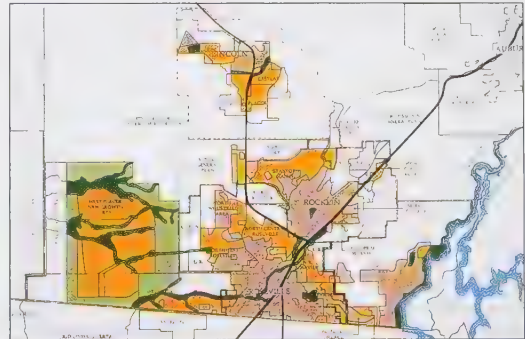
The town contains ten villages with mixed-use cores of commercial and civic uses. A greenbelt of rural estates and aggregated community open space surrounds the town. Each village will have safe, walkable streets connecting a compact arrangement of homes, services, shopping, recreation, work, schools, and civic uses. The central northern-most village has a community college and will be developed in the latter phases of the town. A regional sewage treatment facility would provide state-of-the-art biological treatment and water reclamation for the greenbelt and open space landscaping.

Many New Towns have failed because they were not phased properly – too much infrastructure was built early in the development and the pieces did not make a whole until late in the process. The village structure of this town will allow it to grow in human-scale phases which are complete at each stage. The multiple village structure also allows different qualities in each community to emerge at the appropriate time. Earlier villages would have neighborhood-scale services and retail proportional to the pioneering population, while the latter villages, serving a larger town population, could center on a community college, regional retail, and town center civic uses.

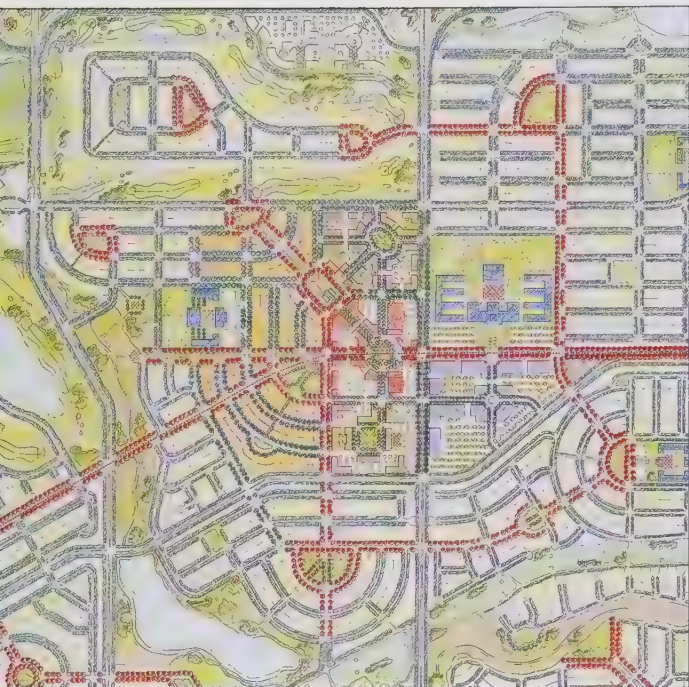
Another important dimension of this project is its economics. New Towns such as this can afford to provide amenities, basic facilities, and services to a broad range of households because of low land costs and efficient infrastructure. In this time of municipal budget crisis and property tax limits, increasing costs are charged to new development. This, of course, either increases the cost of housing or decreases the quality of services, parks and recreation programs, schools, police, fire, or even adequate roads. Sadly, we are seeing the day in which infill, because of high land costs, developer fees, and mitigation requirements, cannot deliver affordable housing. Planning for a New Town is an alternative which can help fill the affordable housing gap.



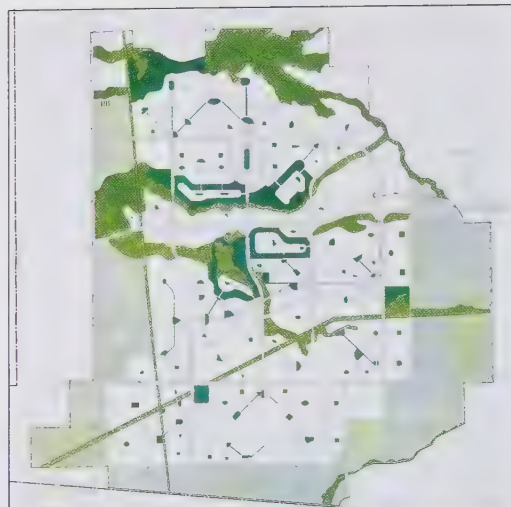
These two maps compare a “standard future” with a New Town. The total population growth for both is 120,000. The “standard future” shows the growth of what are now four distinct small towns – Roseville, Rocklin, Lincoln, and Loomis – into what could be called a freeway suburb of Sacramento. The black diagonal line is Highway 80, a primary interstate free-



way. The new growth, shown in orange, fills in between the towns with fairly expensive standard sprawl, overpowering the identity of each town. In the New Town version of the future, less growth happens around the towns, leaving open space between each and a preponderance of the “old” sections of towns. It also shifts growth away from the already congested freeway.

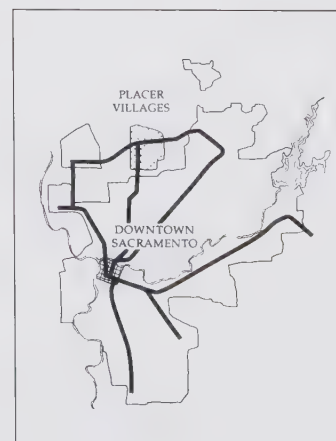
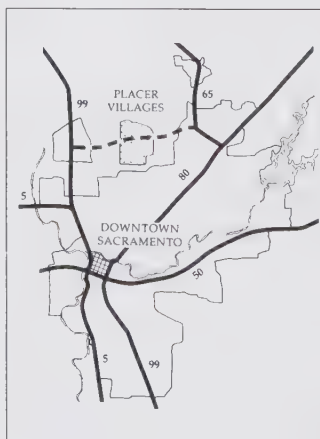


An illustration of one of the ten villages shows the detail of mixed-use and local street connections within a community. The village center has a light rail stop and retail with a radial Main Street leading to a village green. Across an arterial is an employment area and one of the town's three high schools. To the west of the village center is an elementary school which backs into a greenbelt with a stream, trails, and a golf course.



This map shows three levels of open space: regional, town-scale, and neighborhood. At the regional scale the greenbelt functions to define the edge of the metropolitan region and to permanently separate the New Town from surrounding development. The major streams provide flood protection downstream, while they allow a wildlife linkage through the urbanized area along with hiking, bike trails, and recreation. Smaller parks, often joined to schools, provide recreation, kids play areas, and community gathering points.

This pair of regional diagrams shows the location of the New Town with its road and transit connections. The site is within transit distance of the center of the metropolitan region (twelve miles is a maximum convenient travel distance at light rail speeds) and has three connections to the expanding rail system. Highway 80 is the most congested freeway in the region. The New Town location allows growth to be drawn from this overloaded corridor while it provides a relief valve to the underutilized Highway 99 on the east.



Loomis Town Center Plan

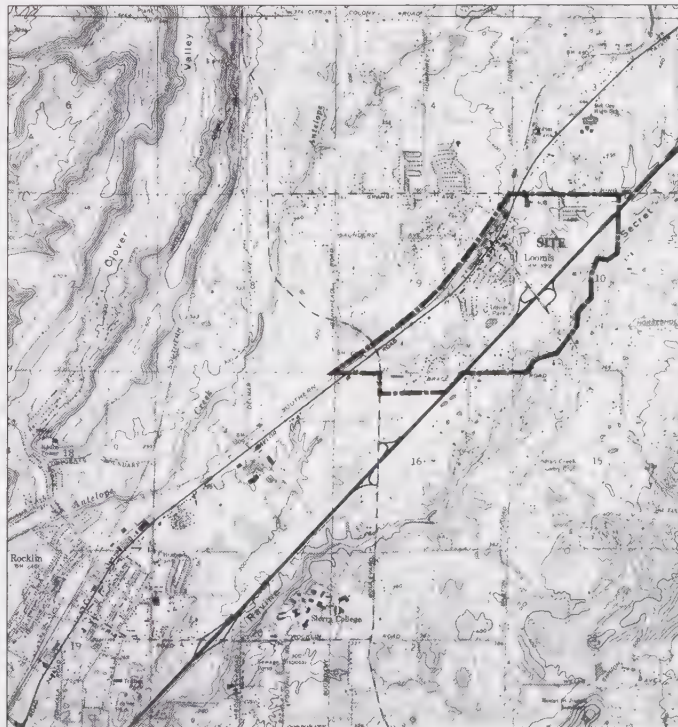
Placer County, California

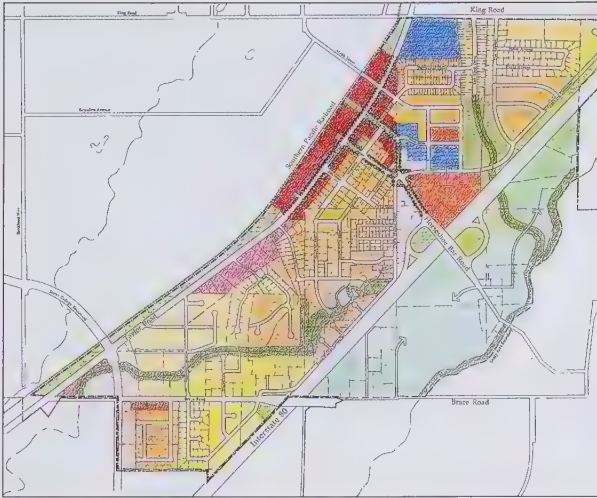
This is an important example of how Transit-Oriented Development urban design principles can be applied in an existing small town – even without transit. Loomis is an old farming town which grew up around the major Southern Pacific Rail line and is now impacted by a major freeway, along with the massive growth of Sacramento, 25 miles to the southwest. The town is in danger of being consumed by the sprawling metropolis which the Sacramento region has become. Not only has Loomis attempted to avoid suburbanization with this town center plan, but it may also be protected by the construction of Placer Villages. Rather than sprawl following the freeway, Placer Villages is intended to absorb much of the growth, allowing this small town to grow at a manageable rate and in a form which honors the pedestrian.

There are several design opportunities in the town center: the infill and redevelopment of the old Main Street, the creation of a new retail center at the inter-

change, and the completion of the residential portions of the town center. The redevelopment of the depressed Main Street involved new landscaping treatments, identification of infill building sites, facade design guidelines, and new parking lots carved out behind the existing buildings. The new retail center had to draw people to the town and capture the tax dollars which were escaping, without competing with the old Main Street. The bridge between the two retail areas became a new civic center with library, town hall, daycare, and post office. The residential portions of the town had a variety of treatments – older neighborhoods were up-zoned to allow ancillary units and vacant parcels were zoned for townhouses and small-lot single-family. Ironically, one of the most controversial aspect of the plan was a proposal to connect two existing cul-de-sacs with the old town grid. The proposal was ultimately modified to provide a pedestrian and bike connection only.

The town has a current population of 5,700 and is surrounded by rolling Sierra foothills and old ranches. The Town of Rocklin, just to the south, doubled its size in the last ten years as a result of Sacramento's booming real estate market.





The new civic and commercial area is located just above the freeway interchange. The most controversial recommendation was to keep the area south of the freeway free of commercial development. This was intended to create a "green" entry to town.



The incomplete development of the old station and Main Street area is both threatened and enticed by the development potential at the interchange.

The development of the town would balance new commercial at the freeway with infill retail on the old Main Street, new residential, and an expanded civic center and park system. The major anchor store would be visible from the freeway, but its parking area would be screened from the local streets. New housing would overlook the town park and new civic center.



Project Credits

The following is a list of Calthorpe Associates planning and urban design projects which appear in this book. Peter Calthorpe has taken the lead role in all of the projects. The other team members are listed in order of involvement.

Regional Plans

LUTRAQ: Making the Land Use, Transportation, Air Quality Connection

Portland, Oregon
1992

Client
1000 Friends of Oregon

Team
Calthorpe Associates:
Shelley Poticha (Project Manager),
Philip Erickson, Catherine Chang,
Joseph Scanga, Matt Taecker, and
Cleve Brakefield

Cambridge Systematics
(Transportation Engineers)

Market Perspective
(Market Analysis)

Description
20 year growth plan for directing new
housing and jobs into mixed-use,
transit-oriented neighborhoods and
revitalized downtowns in the western
suburbs of Portland, Oregon.

Sacramento County Transit-Oriented Development Guidelines

Sacramento County, California
1989

Client
Sacramento County
Planning Department

Team
Calthorpe Associates:
Shelley Poticha (Project Manager),
Joe Scanga, Cindy Sterry, and
Catherine Chang

Mintier Associates (Implementation
Recommendations)

Description
Design guidelines for directing new
housing and jobs into mixed-use
transit-oriented neighborhoods.

Southport Area Plan

West Sacramento, California
1991

Client
City of West Sacramento

Team
Calthorpe Associates:
Rick Williams and Philip Erickson
(Project Managers), Shelley Poticha,
Matt Taecker, Catherine Chang,
Cleve Brakefield, Emily Keenan, and
Connie Goldade

Economic and Planning Systems
(Land Economists)

Fehr & Peers Associates
(Transportation Engineers)

MacKay & Somp (Civil Engineer)

Description
7,280 acre planning area
7 Station Area Plans
2 New Neighborhoods
16,446 residential units
650,000 square feet of retail
commercial
5.2 million square feet of employment
(4,100 jobs)
4 community centers, 9 daycare centers,
9 hole golf course, marina facility,
sensitive habitat protection in riverfront
open space corridor, 9 elementary
schools, 2 middle schools, high school,
light rail, and feeder bus system.

San Diego Design Guideline

San Diego, California
1991

Client
City of San Diego

Team
Calthorpe Associates:
Shelley Poticha (Project Manager),
Matt Taecker, Catherine Chang,
and Joseph Scanga

Description
Design guidelines for directing new
housing and jobs into mixed-use
transit-oriented neighborhoods. Illustrative Plans for three neighborhoods.

Merced Villages

Merced, California
1991

Client
The City of Merced

Team
Calthorpe Associates:
Matt Taecker and Shelley Poticha
(Project Managers), Catherine Chang
(Economic and Planning Systems
(Land Economists)

Fehr & Peers Associates
(Transportation Engineers)

Description
7,900 acre Regional Plan

9 villages
25,000 residential units
890,000 square feet of retail
commercial
1.3 million square feet of employment
(5,200 jobs)

Daycare centers, 10 elementary
schools, 3 middle schools, 3 high
schools, community college expansion,
potential University of California
Campus, village, neighborhood, and
community parks, trail system, light
rail, and bus system.

Station Area Plans

Atlantic Center

Brooklyn, New York
1986

Client
Rose Associates

Team
Calthorpe Associates: Eric Carlson
Skidmore, Owing & Merrill
(Architecture and Planning)

Description
24 acre mixed-use Station Area Plan
641 residential units
800,000 square feet of retail
commercial
2.7 million square feet of employment
(7,700 jobs)
Daycare center, community center, and
subway station.

Jackson-Taylor Revitalization Strategy

San Jose, California
1991

Client
City of San Jose

Team
Calthorpe Associates:
Shelley Poticha (Project Manager),
Rick Williams, and Cindy Sterry
Bay Area Economics (Economists)

Description
75 acre Station Area Plan
2,155 residential units
106,625 square feet of retail
commercial
633,000 square feet of employment
(2,500 jobs)
Daycare center, community center,
cultural center, expanded neighbor-
hood park, small parks and plazas,
and BART station.

Colma BART Specific Area Plan

Daly City and San Mateo County,
California
1991

Client
San Mateo County, Daly City,
and SamTrans

Team
Calthorpe Associates:
Shelley Poticha (Project Manager),
Rick Williams, Matt Taecker,
Joseph Scanga, and David Arkin
David E. Miller
(Project Management and EIR)
Bay Area Economics (Economists)
Fehr & Peers Associates
(Transportation Engineers)
Zigterman Engineering
(Civil Engineer)

Description
 110 acre Station Area Plan
 1,075 residential units
 269,700 square feet of retail commercial
 353,300 square feet of employment (1,384 jobs)
 Daycare center, church, fire station, 2 elementary schools, neighborhood park, public plazas, pedestrian stairway, BART station, park-n-ride facility, bus transfer stop, and 3 kiss-n-ride facilities.

Rio Vista West

San Diego, California
 1992

Client
 CalMat Properties Company

Team
 Calthorpe Associates:
 Matt Taecker (Project Manager)
 and Joseph Scanga

Turrini & Brink
 (Implementation and Planning)

Bement, Dainwood & Sturgeon
 (Civil Engineer)

Entranco-Federhart
 (Transportation Engineers)

Douglas Newcomb, Inc.
 (Landscape Architect)

Description
 95 acre Station Area Plan
 1,070 residential units
 325,000 square feet of retail commercial
 165,000 square feet of employment (660 jobs)

Daycare center, community center, cinema, riverfront promenade, village commons, and light rail station.

Capital River Park

Sacramento, California
 1990

Client
 Goodell & Associates and
 Lodi Mission Partners

Team
 Calthorpe Associates:
 Rick Williams (Project Manager),
 Philip Erickson, and Joseph Scanga

Description
 52 acre Station Area Plan
 916 residential units
 54,000 square feet of retail commercial
 1.7 million square feet of employment (6,800 jobs)

600 room hotel, riverfront promenade and light rail stop.

New Neighborhoods

Laguna West

Sacramento County, California
 River West Developments

Designed
 1989

Team
 Calthorpe Associates: Joe Scanga,
 Mark Macy, Jan Lee Wong, and
 Philip Erickson

Ken Kay Associates
 (Landscape Architecture)

Fehr & Peers Associates
 (Transportation Engineers)

Jack Mixon (Land Planning)

The Spink Corporation
 (Civil Engineers)

Description
 1,033 acre mixed-use New
 Neighborhood
 3,353 residential units
 180,000 square feet of retail commercial
 2.7 million square feet of employment (5,000 jobs)

Town hall, daycare center, elementary school, neighborhood parks, village green, express bus stop, and feeder bus network.

Laguna West Town Hall

Sacramento County, California
 1989

Client
 River West Developments

Team
 Calthorpe Associates: Joseph Scanga,
 Paul Okamoto, Cleve Brakefield,
 Rick Williams, Cindy Sterry, and
 Christina Freidrich

KenKay Associates
 (Landscape Architecture)

Rogers-Ludke (Structural Engineers)

Peters Engineers (Mechanical/
 Plumbing/Electrical Engineers)

The Spink Corporation (Civil)

Carla Carstens Design (Interiors)

Description
 12,000 square foot multi-purpose building

Classrooms, library, kitchen, multi-purpose room, indoor/outdoor stage, and adjacent amphitheater.

Calvine Specific Area Plan

Sacramento County, California
1990

Client

Sacramento County Planning
Department

Team

Calthorpe Associates:
Shelley Poticha and Matt Taecker
(Project Managers), Cindy Sterry

Deakin, Harvey, Skabardonis
(Transportation Planning)

MacKay & Soms (Civil Engineer)

Mogavero & Associates
(Public Involvement)

Description

615 acre project area
1 Station Area Plan
1 New Neighborhood
Secondary Area
3,470 residential units
540,000 square feet of retail
commercial
790,000 square feet of employment
(3,200 jobs)

Daycare center, elementary school,
20 acre community park, light rail
stop, and feeder bus network.

Dry Creek Ranch

Sacramento County, California
1991

Client

Dry Creek Ranch Ownership Group

Team

Calthorpe Associates:
Rick Williams (Project Manager),
Philip Erickson, Catherine Chang,
Joseph Scanga, and Christina Freidrich

Economic and Planning Systems
(Land Economists)

Fehr & Peers Associates
(Transportation Engineers)

MacKay & Soms (Civil Engineer)

Description

2,260 acre project area
2 Infill Neighborhoods
1 New Neighborhood
8,000 residential units
160,000 square feet of retail
commercial
300,000 square feet of employment
(1,200 jobs)

Town hall, daycare center, equestrian
trails, 3 elementary schools, and
express bus and feeder bus networks.

South Brentwood Village

Brentwood, California
1991

Client

South Brentwood Associates/
Kaufman & Broad

Team

Calthorpe Associates:
Rick Williams (Project Manager),
Philip Erickson, Joseph Scanga,
Matt Taecker, Catherine Chang,
Christina Freidrich, and Paul Okomoto

Carlson, Barbee & Gibson
(Civil Engineer)

Description

140 acre New Neighborhood
522 residential units
114,300 square feet of retail
commercial
215,600 square feet of employment
(860 jobs)

Daycare center, church, and
neighborhood park.

Camarillo Gateway

Camarillo, California
1992

Client

The Sammis Company

Team

Calthorpe Associates:
Matt Taecker (Project Manager),
Joseph Scanga, Catherine Chang,
and Rick Williams

South Bay Engineering (Civil Engineer)

Market Perspectives (Market Analysis)

Moore Iacofano Goltsman
(Public Meeting Facilitation)

Description

250 acre New Neighborhood
1,200 residential units
180,000 square feet of retail
commercial

Community center, daycare center,
pool, nature center, farmer's market,
community gardens, elementary
school, and feeder bus station.

Northwest Landing

Dupont, Pierce County, Washington
1990

Client

Weyerhaeuser Real Estate Company

Team

Calthorpe Associates:
Philip Erickson (Project Manager),
Rick Williams, Joe Scanga,
Christina Freidrich, Catherine Chang,
and David Arkin

ESM, Inc. (Civil Engineers)

Robert Shinbo Associates
(Landscape Architects)

Mithune Partners
(Architectural Consultants)

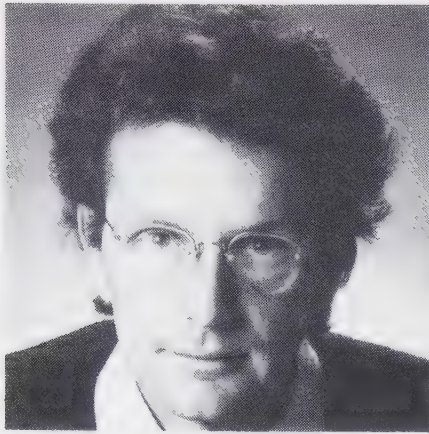
Description

2,100 acre New Town
3 villages
5,500 residential units
1.8 million square feet of retail
commercial
9 million square feet of employment
(36,000 jobs)

Town hall, daycare center,
6 elementary schools, 3 middle
schools, and 2 high schools.

Towns and New Towns

Gold Country Ranch Nevada County, California 1991 <i>Client</i> Gold Country Ranch Inc. <i>Team</i> Calthorpe Associates: Philip Erickson (Project Manager), Catherine Chang, Matt Taecker, and Maya Foty Eugene Dvorak (Client Representative) Economic and Planning Systems (Land Economists) Omni Means and MacKay & Soms (Civil Engineers) Fehr & Peers Associates (Transportation Engineers) <i>Description</i> 7,750 acre New Town 2 villages 7,385 residential units 615,200 square feet of retail commercial 1.4 million square feet of employment (550 jobs) Town hall, daycare center, college, 18 hole golf course, 3 elementary schools, 2 middle schools, 100 acres of town squares, neighborhood parks, and community parks, 6,000 acres of preserved open space.	<i>Team</i> Calthorpe Associates: Rick Williams (Project Manager), Joe Scanga, and Philip Erickson Dames & Moore (Transportation Engineering) Envisors, Inc. (Civil Engineering) Conservation Consultants, Inc. (Environmental) Fishkind & Associates, Inc. (Market Economics) <i>Description</i> 10,000 acre New Town 7 villages 20,000 residential units 1.8 million square feet of retail commercial 9 million square feet of employment (36,000 jobs) Town hall, daycare center, 6 elementary schools, 3 middle schools, and 2 high schools, commuter rail stop, and feeder bus network.	<i>Description</i> 16,040 acre New Town 10 villages 34,175 residential units 3 million square feet of retail commercial 19 million square feet of employment (32,000 jobs) Town hall, daycare center, 19 elementary schools, 3 middle schools, 3 high schools, community college, 18 hole golf course, neighborhood and community parks, light rail system, and feeder bus network.
Lexington Park Polk County, Florida 1989 <i>Client</i> Flag Development Company	Placer Villages Placer County, California 1991 <i>Client</i> Placer Village Associates <i>Team</i> Calthorpe Associates Philip Erickson (Project Manager), Cindy Sterry, Catherine Chang, and Matt Taecker Economic and Planning Systems (Land Economists) Fehr & Peers Associates (Transportation Engineers) MacKay & Soms (Civil Engineer) AgAccess (Soils) PACE (Ecological Systems)	Loomis Town Center Plan Loomis, California 1991 <i>Client</i> Town of Loomis <i>Team</i> Calthorpe Associates: Matt Taecker and Shelley Poticha (Project Managers), Cindy Sterry, and Catherine Chang Mintier Associates (Implementation Recommendations) Deakin, Harvey & Skabardonis (Transportation Planners) Moore Iacofano Goltsman (Public Meeting Facilitation) <i>Description</i> 490 acre Town Center Plan 750 new residential units 250,000 new square feet of retail commercial 220,000 new square feet of employment (1,500 jobs) Town hall, central park, community center, daycare center, existing elementary school.



PETER CALTHORPE, AIA, BIOGRAPHY

Peter Calthorpe has been named by *Newsweek Magazine* as one of twenty five "innovators on the cutting edge" for his work redefining the models of urban and suburban growth in America. Starting practice in 1972, he has had a long and honored career in both Planning and Architecture, combining experience in both disciplines to develop an environmental approach to development in our time. He was recently selected by the Federal Government to represent the USA in an exchange with the USSR on city and regional planning.

Calthorpe has lectured extensively throughout Europe, USA, and South America, and has taught at UC Berkeley, University of Washington, University of Oregon, and University of North Carolina. His published work includes technical papers, articles for popular magazines, a Sierra Club book *Sustainable Communities* with Sim Van der Ryn, and *The Pedestrian Pocket Book* with Doug Kelbaugh. He has received numerous honors including two Progressive Architecture Citations, a National AIA Design Award, and two National Endowment for the Arts Grants.

His early architectural work included the keynote pavilion at the 1970 Aspen International Design Conference, the commons building for Kresge College, UCSC, and many residences. After studying at Yale's Graduate School of Architecture, he joined the Farrallones Institute as Director of Design. His buildings and research from this period established his leadership in the passive solar design field, producing countless publications and three National HUD awards. Following his work at Farrallones, Calthorpe became a project designer at the California Office of the State Architect to work on the design of the Bateson Building, a model energy efficient state office building.

Upon entering private practice in 1978 with the firm of Van der Ryn, Calthorpe and Partners, his work ranged from large community planning projects to commercial complexes and smaller public buildings. Since forming Calthorpe Associates in 1983 his work has further diversified producing hotels, housing, offices, industrial, and public buildings along with planning projects for over 40,000 acres in both urban, newtown, and suburban settings. A special emphasis remains mixed-use master planning with a concern for creating communities which are environmentally sound, economically feasible, and socially progressive.

SHELLEY R. POTICHA, AICP, Associate

Shelley Poticha is an urban planner with expertise in land use planning, urban design, policy development and citizen involvement. She has over twelve years of professional experience preparing plans for growing urban and suburban communities, regional agencies, non-profit groups, and private developers. With Calthorpe Associates, she directs the efforts of the firm's planning projects, with a particular emphasis on work with public agencies.

Ms. Poticha is the Project Manager for the "*Making the Land Use, Transportation, Air Quality Connection (LUTRAQ)*" project for 1000 Friends of Oregon. This innovative study is examining how mixed-use, transit-oriented land use patterns can affect travel behavior in a rapidly growing county west of Portland, Oregon. Ms. Poticha is also the Project Manager for the *Colma BART Station Specific Plan* which will create a mixed-use core of infill development adjacent to a new BART station and the *North Livermore General Plan Amendment*, a plan for 30,000 new population coupled with a permanent open space protection program in a 15,000 acre new growth area. In addition to managing full consultant teams, She prepared the policy documents and implementation programs for each of these studies. Ms. Poticha has also served as Project Manager for a variety of Specific Plans and Master Plans, including the *East Sunnyside Village Plan*, a detailed master plan and design guidelines for 360 acres in Clackamas County, Oregon which included an extensive community involvement program; the *Calvine/Highway 99 Specific Plan*, for a 400 acre urban expansion site in southern Sacramento County; the *Jackson-Taylor Revitalization Strategy*, a long-range redevelopment plan for a 10-block older industrial area in the City of San Jose; the *Loomis Core Area Master Plan*, a detailed plan, zoning code, and implementation strategy for the main street of a small semi-rural community; and the *Merced Village Concept Plan* which developed a land use plan and design guidelines for the city's next 40 years of growth.

Ms. Poticha also developed the prototype for the firm's *Transit-Oriented Development Design Guidelines* which provide strategies for locating new growth within proximity of regional transit systems, reducing auto congestion, and encouraging mixed-use, pedestrian-oriented development patterns. These guidelines are now being used by the City of San Diego, Sacramento County, the San Mateo County Transportation Agency, and the Portland Regional Transit Agency (Tri-Met). They are also published as part of a book she authored with Peter Calthorpe, *The Next American Metropolis: Ecology, Community, and the American Dream*.

Prior to joining Calthorpe Associates, Ms. Poticha worked for EDAW, Inc. as an Associate, where she managed the San Francisco office's public planning efforts and with Brady and Associates, a planning and landscape architecture firm based in Berkeley, California, where she was also an Associate. With both of these firms, she managed a variety of Specific Plans, General Plans, and urban design studies throughout California and the West Coast.

Ms. Poticha holds a Master of City Planning from the University of California, Berkeley, and a Bachelor of Arts from the University of California, Santa Cruz, with a major in Environmental Planning and Public Policy and a minor degree in Community Studies. She is a member of the American Institute of Certified Planners, the American Planning Association, and the Bay Area Council with whom she published "*Making Sense of the Region's Growth*." She also serves on the Board of Directors for the University of California Berkeley, College of Environmental Design Alumni Association.

PHILIP ERICKSON, AIA, Associate

Philip Erickson is an architect with extensive experience in community and urban design, land use and site planning, architecture, and feasibility analysis. He has nine years of professional experience with architectural and planning firms providing services to universities, public agencies, private non-profit housing groups and educational institutions, and commercial developers.

With Calthorpe Associates, he is currently the Project Manager for *Gold Country Ranch* in Nevada County, California, a proposal which would preserve over two-thirds of the 7,000 acre site as unimproved open space while creating a mixed-use small town for 16,000 residents. The plan seeks to protect the county's rural small town character by relieving growth pressures on existing small towns and complimenting their urban form. Mr. Erickson is the Project Manager for the 16,000 acre *Placer Village's* new town proposal in Placer County, California. He designed the land use plan consisting of ten mixed-use villages with surrounding residential neighborhoods and employment areas, implementing the firm's concepts of pedestrian- and transit-oriented development for a community with the potential to create 27,000 jobs and house 82,000 people. In addition, he coordinated the consultant team's proposal to the county for inclusion in their General Plan update. He is the Project Designer for the "*Making the Land Use Transportation Connection*" project for 1,000 Friends of Oregon in Washington County, to the west of Portland, Oregon. Mr. Erickson analyzed demographic projections and existing land use conditions to guide the selection of potential development sites for transit-oriented developments. He is also Project Designer for the *North Livermore General Plan Amendment*, a plan for a 15,000 acre city expansion area with an ultimate population of 30,000 and a permanent open space protection program.

He is the Project Manager for the construction phase of *Laguna West*, an 800 acre new town in Sacramento; his responsibilities have included coordinating construction issues with the Civil Engineers, writing design guidelines and performing design review of tract and custom homes. As a Project Manager and Urban Designer, he has coordinated economic and transportation analysis while designing several large-scale planning projects, including: two mixed-use new towns for the Weyerhaeuser Real Estate Company in Washington State, *Northwest Landing* (2,100 acres) and *Snoqualmie Ridge* (1,300 acres); and the 8,000 acre *Merced Village Concepts Study* for the City of Merced, California.

Prior to joining Calthorpe Associates, Mr. Erickson worked with Gillis-Judson-Wade, Architects as a Job Captain and Project Designer. He was a Project Designer for the *Lake Merritt United Methodist Church* in Oakland, California. He was the Job Captain for various public and private school projects throughout Northern California. Additionally, with this firm he was a finalist in a *Campus Master Plan Competition* for the City College of San Francisco.

Mr. Erickson has a Bachelor of Arts in Architecture, Masters of Architecture (urban design concentration), and Masters of City and Regional Planning (housing policy and finance concentration) from the University of California at Berkeley.

Can a new suburb be like a small town?

In Sacramento, an ambitious plan to control growth and cool the love affair with cars

Sacramento real-estate developer Phil Angelides and San Francisco architect Peter Calthorpe are California dreamers of a different sort. Both yearn to bring back many of the features of the traditional small town to 21st-century suburbs, to make them places where neighbors swap stories on front porches and where life does not revolve around the automobile. Fortunately for Angelides and Calthorpe, officials in Sacramento County, which includes the state capital, share their vision.

In May, pending final approval from county supervisors, Angelides will begin construction of Laguna West, a \$500 million, 3,300-home development 12 miles south of Sacramento. Local officials hope that the project will be at least a partial antidote to their suburban sprawl—and planners elsewhere in California and around the U.S. will watch to see if the Sacramento plan can be applied to other bedroom communities with chronic growth and congestion problems. Since 1980, refugees from smog-choked Los Angeles and pricey San Francisco have flocked there, raising the county's population from 783,000 to slightly more than 1 million. A major environmental report last year heightened concerns over the area's traffic congestion, air quality and general living conditions. "We have to do something, and this is a start," says county engineer Tom Zlotkowski.

The Laguna West project differs from other planned communities of the past 20 years in its emphasis on linking suburbs via mass transit. In fact, Calthorpe's design is based on his "pedestrian pocket" concept, in which single-family and multifamily housing units, day-care centers, parks and commercial space are clustered around a town center served by mass transit. "We value our private world so much we don't endow our public world with any quality that would draw people together," he says. Angelides was so impressed that he scrapped his completed plan for a traditional suburban tract and asked Calthorpe to think even bigger.

Porch with a view. The result of their collaboration is an 800-acre development that will include 1,800 detached single-family homes as well as 1,500 townhouses and rental-apartment units, none of which will be more than a half mile from the town center. The homes—at least half will have front porches—



Move over, Norman Rockwell. In Peter Calthorpe's and Phil Angelides's new housing development, front porches, long walks and corner stores are the wave of the future

will be built much closer to the street, and most of their garages will be located at the rear. Many of the streets will be narrower than the usual suburban streets, and every one will have sidewalks. Each parcel will have three trees lining the walks, and plans call for alleys behind the homes, reminiscent of older neighborhoods in many American cities, including Sacramento. Laguna West will also feature paths for bicyclists and joggers, and a branch of the public library will be located in the community center.

Prices in the development will range from \$90,000 for townhouses to \$400,000 for lakefront homes. Property is expected to sell fast, due as much to Sacramento's recent 20 percent annual rise in property values as to the project's innovations.

Planners view Laguna West as an important test of whether higher-density housing will support greater mass-transit use. Sacramento's two light-rail lines are not nearby, but a line to a nearby development is planned. Buses will link Laguna West to the new rail route.

Some analysts doubt Calthorpe can design a vibrant community life. Suburbanites live near others not for social interaction but to ensure their property values, says Carolyn Adams, a professor of urban policy at Temple University. "People don't move to suburbia to recreate small-town America."

But there are potential home buyers who think Laguna West will suit them. Gregory Lucas, 34, an unmarried financial planner, wants to sell his three-bedroom home in a neighboring subdivision and buy in Laguna West, where he

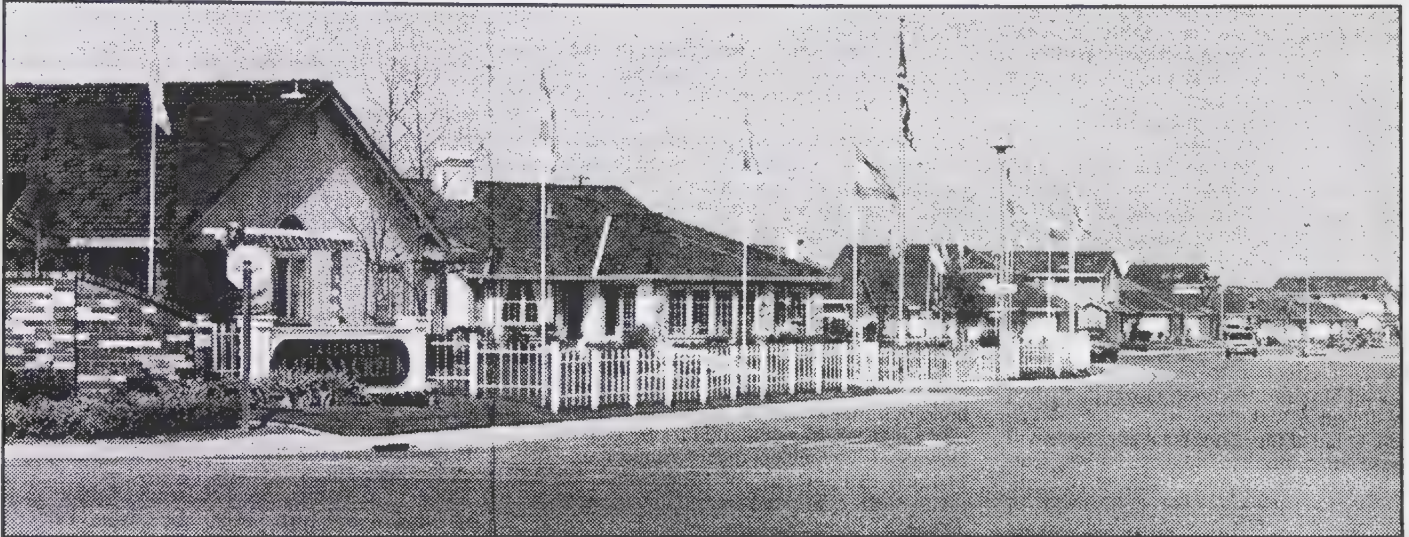
hopes to raise a family—and do lots of walking. Phyllis Watts, a Sacramento psychologist, and her fiancé plan to buy "at the high end," and they look forward to living in a diverse community that includes renters. "People are hungry for more contact with others," Watts says.

Open for business. Angelides concedes that attracting retail stores to the town center will be crucial to reducing residents' reliance on cars. Prospective retailers may be unwilling to give up the convenient commercial strips along major thoroughfares. However, Matt Connolly, a shopping-center developer, says the town-center idea intrigues him and other retailers who are pressed to cope with traffic problems. Ironically, Connolly says retailers may be attracted to Laguna West because it will be located near an interstate highway and can draw customers from nearby subdivisions. Other builders facing environmental restrictions and higher costs are warming to the pedestrian-pocket concept. "If this is the only way we can build homes five years from now, we'll be happy to," says Michael Winn of Winncrest Homes.

Sacramento County has hired Calthorpe, who is designing two similar projects along Amtrak routes near Tacoma, Wash., and Tampa, Fla., to rework parts of its master plan so new growth can be better served by transit. With California's population projected to grow by 4.5 million people in the next decade, projects like Laguna West may become more the rule than the exception. ■

by Laura Thomas in Sacramento

Sacramento Suburbs to Try 'Pedestrian Pockets'



The New York Times/Terrence McCarthy

The Laguna Creek development, where the last 800-acre section is to be developed as a 'pedestrian pocket.'

Homes Planned A Walk From Shops and Jobs

By JOHN MCLOUD

SACRAMENTO, CALIF.

This rapidly growing state capital of 350,000 residents has rarely been thought of as a center of innovation. But planning officials and builders all over northern California are watching the progress of recent proposals for three large suburban developments with strong transit and pedestrian orientations.

The proposals mark a radical departure from current conventional suburban development practices in California's enormous Central Valley, one of the world's most productive agricultural regions, where recent growth is threatening to produce urban sprawl.

One proposal, for an 800-acre site in the Laguna Creek area 12 miles south of downtown, has reached the development stage,

with construction scheduled to begin this spring. The two others, for 5,600 acres in the North Natomas area eight miles north of downtown and for 25,000 acres just across the Sacramento County line in Sutter County, are still being planned.

Peter Calthorpe, a San Francisco architect, is involved in both the Laguna Creek and Sutter County projects. For several years Mr. Calthorpe has been promoting a concept he calls "pedestrian pockets," in which housing, retail and commercial uses are built within walking distance of one another and are all placed along nodes of major transit corridors.

The concept, which Mr. Calthorpe emphasizes is neither radical nor new but rather a return to the way cities used to be built, attracted only polite attention until the Environmental Council of Sacramento, a private nonprofit organization, began promoting it.

Phil Angelides, president of River West Developments, one of this city's largest builders, liked the idea and persuaded his partners to try it on the final parcel of an 8,000-acre master-planned community they were already building at Laguna Creek. The earlier parts of the project were designed as conventional suburbs, with street after street

of single-family homes feeding into standard commercial strips. Shopping centers and business parks stood off from the housing.

"We thought we were doing well," said Mr. Angelides, "but not well enough. We've always done architectural review in our projects, but we've never before evaluated how buildings relate to one another and how everything works together. We've done a lot of marketing talk about community, but the truth is we haven't actually done much about building community."

Self-interest is also at work. Sacramento already has severe air-quality problems. The Federal Environmental Protection Agency ranks the Sacramento metropolitan area as one of the nation's 10 smoggiest, and its population, now 1.15 million, is growing by 60,000 a year.

"Developers are going to have to be more responsive," said Mr. Angelides, "or the authorities are going to really clamp down."

Jonathan Cohen, whose Live Oak Associates of Walnut Creek is one of the companies behind the Sutter County proposal, to be called Sutter Bay, spoke in a similar vein. "You've got to find incentives for people to get out of their automobiles," he said.

The idea behind pedestrian pockets, Mr. Calthorpe explained, is to put services, transit and even some jobs within walking distance of homes. The Laguna Creek project will have a station of Sacramento's light-rail system built into it.

The U-shaped system, operated by the Sacramento Regional Transit District — which has already approved plans for the station — goes 20 miles east from downtown Sacramento; the North Natomas and Sutter Bay sites are along possible rail extension routes.

A joint venture of River West, AKT Developments and Lexington Homes, Laguna Creek will comprise 1,850 single-family and 1,500 multifamily dwellings plus recreational, community, commercial and retail uses. The first units will go on sale this winter, with completion expected in 1995.

Unlike many contemporary suburbs, the development will have sidewalks along all

streets, and streets will intersect so pedestrians can move about freely. In the typical California suburb, long, winding streets culminate in dead ends, with no cross streets other than a few major thoroughfares. In addition, about 14 percent of the site will be reserved for parks and artificial lakes.

Another difference between this project and the typical suburban subdivision, said Mr. Calthorpe, is that it will include housing for a broad income range. Apartment rents will range from \$500 to \$1,000 a month for one to three bedrooms and condominium apartments will be priced from \$130,000 to \$200,000. Single-family homes will start at about \$210,000 and go up to \$500,000. However, Mr. Angelides said, "we'll spend some time trying to get some units even lower. We are committed to a genuine economic mix."

Not everyone is convinced that Mr. Calthorpe's ideas have the potential to stave off the problems generated by population growth. Bruce Race, a planner with the San Francisco firm of Kaplan McLaughlin Diaz, which has created urban design plans for several Central Valley communities, including Sacramento, said that large new suburban developments, regardless of their design, can only contribute to the area's problems.

"The pedestrian pocket concept is a micro-solution, an academic fix," said Mr. Race, who has scheduled a Central Valley planning "summit" next Friday in Modesto specifically to address growth-related issues. "It doesn't really stop the spread. We've got to tackle the problem on a regional scale."

Some developers are also skeptical. "The market impulse is to go with the typical pattern," said Mike Winn of Winn Crest Homes in Sacramento, which has built thousands of single-family residences in the area. "The expedient route is to map out the land in the conventional manner and get the house on the market as soon as possible."

The "pedestrian pockets" make sense, he said, but as long as the market insists on a single-family home in a suburban setting, they are not going to make an impact.

In response to Mr. Race's criticism, Mr. Calthorpe said that Sacramento County has

hired his firm, Calthorpe Associates, to draft an element of its general plan that would make pedestrian and transit orientation part of the county code for all new development. As for marketability, he noted that more than half the units in Laguna Creek will be detached, single-family homes laid out in a fairly traditional pattern, with tree-lined and landscaped parking strips and garages behind the house line.

"Our streets will have much more of the feel of early 20th-century towns," he said. "They won't be so anonymous and barren."

Mr. Calthorpe conceded, however, that pedestrian pockets do not hold all the answers. Because of the relatively low cost of land, immigration into the Central Valley from coastal areas of California has been so heavy that builders are hard-pressed to keep up with the demand and few want to take the time for creative planning.

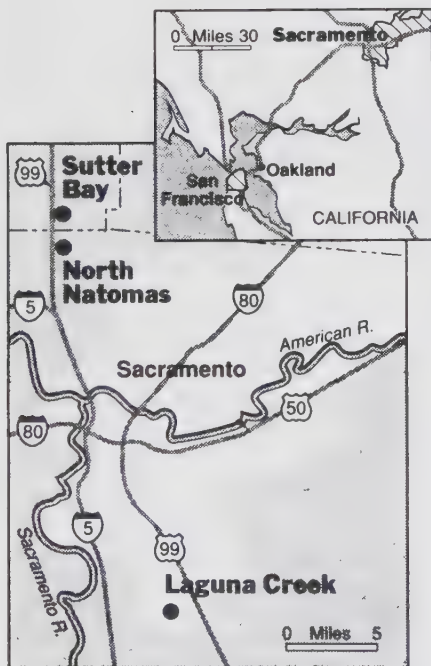
On the other hand, he said, "Sacramento has such a strong market right now that we can afford to take a bit of risk."

"The fact is," he said, "we're giving what you would get in a standard subdivision but offering a lot more. We're really not compromising anything."

Cameron Doyel, president of Jacobsen Land Company, one of eight property owners that have joined forces to produce a unified plan for the North Natomas site, said it took him about two years to come around to accepting a shift in perspective.

"We backed into this idea out of necessity," he said. "We had to find a way to reduce the number of automobile trips in order to satisfy" the E.P.A.'s air-quality demands. And, he added, "the more we looked, the more we realized this was the most sensible way to approach it."

The proposal for the North Natomas project entails 14 small villages, each with its own school, park and commercial center, and three larger villages that would have more intensive development. According to Mr. Doyel, the project would generate only one-eighth as many off-site automobile trips as a typical suburban development of similar size and population.





The Post-Suburban Metropolis

BY PETER CALTHORPE

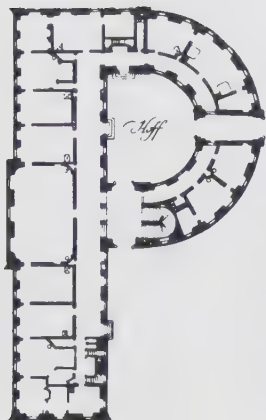


The technology of the built environment is easy to criticize and difficult to change, particularly as it relates to our ever-increasing dependence on automobiles. Architect and planner Peter Calthorpe is designing alternatives that are actually getting built. His article "Pedestrian Pockets" appeared in WER #58 (p. 118), and The Pedestrian Pocket Book, to which he contributed, was reviewed in the Whole Earth Ecolog (p. 72).

Calthorpe was recently chosen to create an alternative land-use plan for Portland by the 1000 Friends of Oregon. This influential watchdog group has been responsible for monitoring state legislation setting urban limit lines for Oregon's cities; the task at hand in Portland is to devise transit-oriented development alternatives in hopes of avoiding construction of a proposed perimeter freeway. Calthorpe has also been hired by two of California's fastest-growing counties, Sacramento and San Diego, to develop design guidelines for their new growth areas. His firm, Calthorpe and Associates of San Francisco, has created masterplans for 60,000 acres at sites throughout the US. Among these is Laguna West, a 10,000-person pedestrian pocket currently under construction outside Sacramento. —Richard Nilsen

Walkable Streets:

The scale and character of neighborhood streets must change to provide pedestrian-friendly connections and social places, rather than car-dominated driveways and high-speed collectors. Streets should be tree-lined, with front porches replacing garage doors.



PEOPLE ARGUE ENDLESSLY about growth — where, how much, what type, what density, and if it is really necessary at all. Sprawl is bad, infill is good (if it is not in our neighborhood), new towns destroy open space, masterplanned communities are sterile, and urban redevelopment is fine for “other people.” In all cases, we have been doing a terrible job of building our cities, suburbs and new growth areas; our patterns of growth are dysfunctional, regardless of location or type. The problems of growth are not to be solved by limiting its scope or location; they must be solved by rethinking the nature and quality of growth itself, in every context. We need to start creating real neighborhoods rather than subdivisions, urban quarters rather than projects, diverse communities rather than segregated masterplans; quite simply, towns rather than sprawl.

The quality of growth is dependent on the technology of mobility — the mix and interaction of the automotive, mass-transit, and pedestrian worlds. The car is now the defining technology of our built environment. It sets the form of our cities and towns. It dictates the scale of streets, the relationship between buildings, the need for vast parking areas, and the speed at which we experience our environment. Somewhere between convenience and congestion, the auto dominates what were once diverse streets shared by pedestrians, cyclists, trolleys, and the community at large. And more importantly, the auto allows the ultimate segregations in our culture — old from young, home from job and store, rich from poor and owner from renter. It has come to dominate the public realm, extending the private world from garage door to private destination.

As a piece of technology with a mind of its own, perhaps we should ask what the car wants, or for that matter what a transit system or a pedestrian wants. The car in all cases wants to go fast. Speed has many implications on the built environment — it defines a street system with few intersections and many lanes, it requires wide streets with soft sweeping turns, it wants ever more freeways and ever-larger parking areas. These criteria result in the curvacious superblock arterial system, freeway networks, and parking-lot-isolated land uses so common today. The car wants lots of pavement and the low density development that preserves plenty of space for it. The car also seems to want to travel more; between 1969 and 1983 the national population grew by 16 percent while the total vehicle miles traveled in cars increased 56 percent.

The requirements of a transit system are quite different. Its fundamental desire is for more riders. This requires higher-density land uses (housing at ten units per

acre minimum), dedicated right-of-ways for easy movement, infrequent station stops (one-mile minimums), frequent service (no more than fifteen-minute intervals) and big, mixed-use job destinations like city cores. Destinations need to be mixed and walkable so that riders are not stranded when they arrive. Some transit systems have modest dreams, wanting only to serve the poor and carless on an infrequent basis at slow speeds. Some are very ambitious, looking for urban densities, high speeds, and uninterrupted underground passageways.

The wants of the pedestrian overlap and in some cases contradict the requirements of these other systems. Pedestrians want close destinations — shops, schools, services, recreation. They want direct links to these destinations free of cul-de-sacs, parking lots, or massive intersections. They want safe, interesting, and comfortable streets to walk on, tree-shaded and with houses and shops fronting directly on them for interest and security. They want detail and human scale in the edges and places of a community. Simply put, they want narrow streets lined with entries and porches



***Town Centers:** Rather than “strip” retail centers lining arterials, the town center must combine civic functions, small businesses, and stores with parks, plazas, transit stops, and daycare. It must collect the daily activities of a community and be a source of identity for several neighborhoods.*



leading to local shops, schools and parks — not rows of garage doors on curving streets leading to six lane arterials. Pedestrians also like transit to extend their range of destinations. These wants can be satisfied in either high-density urban centers or small mixed-use towns. The issue is not one of density but of quality.

Each of these systems places differing demands on the environment and architecture. Clearly the car places the greatest stress on the environment while “liberating” architecture from the limits of urban context and human scale. At the speed of the auto, little more than isolated signature buildings will read — the grotesque landscape of corporate symbols and chain-store logos. Mass transit calls for a more dense, integrated and focused architecture than our current planning models require. The pedestrian wants an architecture oriented to the sidewalk, one that provides continuity as well as diversity, and has human scale and detail.

Various environments satisfy different combinations of these wants. The European city works for both the pedestrian and mass transit, but has great difficulty accommodating the car — hence the many movements throughout Europe to ban the car in old city cores. The traditional American town provided for both the pedestrian and the car (back when there was only one car per household), but rarely offered the density or focus needed by mass transit. The modern American city, violated by urban renewal, suburban flight, parking structures, and freeway interventions, fails to fully satisfy the auto, the pedestrian, or mass transit. The modern suburb pleases only the car, leaving both mass transit and the pedestrian unsatisfied.

Given the social, economic and environmental forces of our time, some new synthesis of these three systems is needed. The challenge is to introduce the needs of the pedestrian and mass transit into the auto-dominated regions of our metropolitan areas, not to return to the fiction of small-town America or hope to absorb a disproportionate percentage of growth into urban centers. Urban centers will grow strong if their suburban areas deliver transit riders rather than cars to their core, and if their internal development favors the pedestrian.

Pockets of mixed-use development with streets designed for both the pedestrian and the car will support expanded mass transit into the suburbs. A network of such developments will provide a focus in the suburban environment. This will draw traffic from the overloaded arterial system

and city center, support a transit network, and balance housing and job opportunities within the region. The entire metropolitan framework needs to be layered, with an arterial grid for through auto traffic, neighborhood streets that link homes with local destinations for pedestrians and slow cars, a transit system reinforced by suburban stations with intensified development, and a pedestrian-dominated urban center. Such a metropolitan strategy would simultaneously address environmental, social, and technical concerns, rather than segregating them. It would define a context for an architecture of solutions rather than of anecdotes.

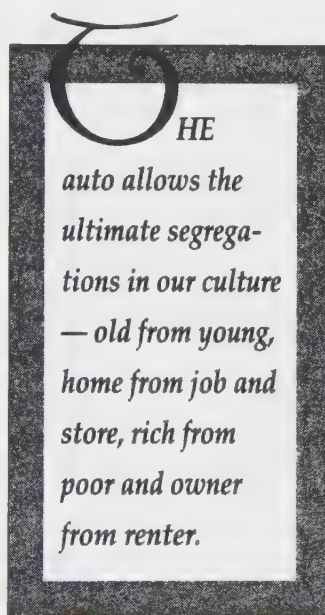
The Crisis of Place in Suburbia

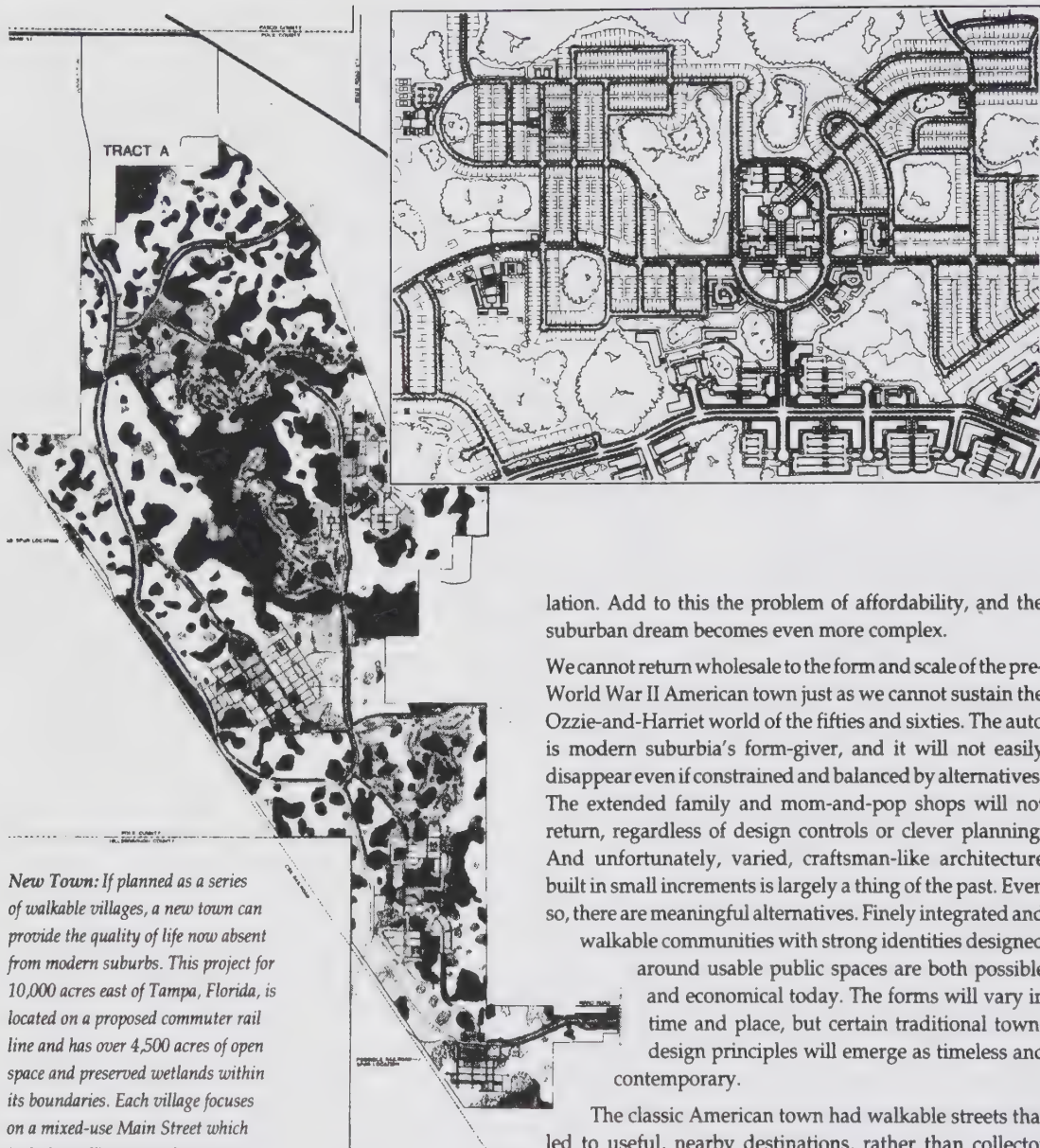
THERE IS A growing sense of frustration and placelessness in our suburban regions, a fractured quality that overlays the unique aspects of each place with chain-store architecture, scaleless office parks, and monotonous subdivisions. Americans moved to the suburbs for privacy, mobility, security, and ownership. Increasingly they now have isolation, congestion, rising crime, and overwhelming costs.

There is a profound mismatch between the old suburban patterns of settlement that have evolved since World War II and the post-industrial culture in which we now find ourselves. This discrepancy is generating environmental stress, intractable traffic congestion, a dearth of affordable housing, loss of irreplaceable open space, and lifestyles that burden working families and isolate the elderly. This mismatch has two primary sources: a dramatic shift in the nature and location of our work places, and a

fundamental change in the character of our increasingly diverse households.

A major shift has occurred in the quality and makeup of the American household. Our old suburbs are designed around a stereotypical household which is no longer prevalent. Of the approximately 17 million new households formed during the 1980s, 51 percent were occupied by single people and unrelated individuals, 22 percent by single-parent families, and only 27 percent by married couples with or without children. In the group with children, the family now typically has two workers. People over the age of sixty-five will make up 23 percent of all new households. The traditional three-bedroom, single-family residence is relevant to a decreasing segment of the popu-





New Town: If planned as a series of walkable villages, a new town can provide the quality of life now absent from modern suburbs. This project for 10,000 acres east of Tampa, Florida, is located on a proposed commuter rail line and has over 4,500 acres of open space and preserved wetlands within its boundaries. Each village focuses on a mixed-use Main Street which includes sufficient retail space to meet neighborhood shopping needs, service-oriented office space, and public-use space placed around a village green. This new town would combine 20,000 new homes with 36,000 jobs.

lation. Add to this the problem of affordability, and the suburban dream becomes even more complex.

We cannot return wholesale to the form and scale of the pre-World War II American town just as we cannot sustain the Ozzie-and-Harriet world of the fifties and sixties. The auto is modern suburbia's form-giver, and it will not easily disappear even if constrained and balanced by alternatives. The extended family and mom-and-pop shops will not return, regardless of design controls or clever planning. And unfortunately, varied, craftsman-like architecture built in small increments is largely a thing of the past. Even so, there are meaningful alternatives. Finely integrated and walkable communities with strong identities designed around usable public spaces are both possible and economical today. The forms will vary in time and place, but certain traditional town-design principles will emerge as timeless and contemporary.

The classic American town had walkable streets that led to useful, nearby destinations, rather than collector streets that funnel into heavy-traffic arterials. Elm Street led to Main Street, or to the neighborhood park, or daycare or the elementary school. Such a pattern is actually cheaper to build and results in shorter trip distances, even if cars are used. The streets are narrow, have sidewalks and are tree-lined. They are fronted by porches and entries rather than garage doors and driveways. They allow through traffic but slow it with frequent intersections and frugal dimensions. Gone are the extremes of soundwalled expressways and cul-de-sacs. Privacy is maintained but partly shifted from the front yard to the neighborhood. Security is provided by eyes on the street rather than gates and armed



patrols. Such streets are practical, not nostalgic. They are practical for single parents tired of being chauffeurs for children unable to walk to most activities. They are practical for the elderly without cars, for single people looking for accessibility, and for working families looking for stronger and safer communities.

The classic American town had diversity of use. So does the modern suburb, but with greater separations. The classic town separated activities: residential streets, commercial streets, school sites, and a formal civic center. But the connections between uses were close, walkable, and direct. (Even our larger cities are use-zoned, with vertical mixed use—in which, for example, a shopkeeper lives above his shop—the exception rather than the rule.) The center of the town integrated commercial, recreational, and civic life rather than isolating them. This is also quite practical today. Commercial centers can benefit from the increased traffic created by civic and recreational trips.

Parks and civic centers are better utilized when located at a hub of activity and within walking distance of residential neighborhoods.

What cannot be directly adapted from the pre-World War II town is its fine grain and scale. We now have larger institutions which resist Balkanization. Retail markets are growing ever larger, with the typical supermarket pushing 60,000 square feet and discount stores reaching 120,000 square feet. The small shops remain but the large anchor stores keep growing — motivated either by the convenience of “one-stop shopping” or the price discounts. These anchors will resist a Main Street configuration, demanding the market area and visibility of a major arterial. Hybrid town centers must combine the intimacy of a main street with the accessibility of strip centers — another interesting design challenge.

The scale of development entities, builders, and land assembly has also grown radically in the last thirty years. Towns no longer grow by individual buildings or even small groups, but by production units of approximately 150 houses or by retail centers of at least 60,000 square feet. Apartments are rarely developed at under 100 units because of management economics. Land developers often bring over 100 acres (the size of a classic town center) through the permitting process with one masterplan. Rather than the architectural diversity of incremental growth, we are confronted by large blocks developed into

formulaic configurations dictated by developer inertia and conservative financing criteria. These huge developments demand innovative design in order to avoid the “theme” quality of isolated subdivisions, shopping centers, and office parks. They require an architecture which integrates them into a larger community without nostalgically imitating the scale and diversity of older towns. At the same time, the architecture must avoid the sterility and highway scale of the modern suburb. The scale of these developments cannot be concealed or denied, but it can contribute to and be made responsive to a larger civic order.

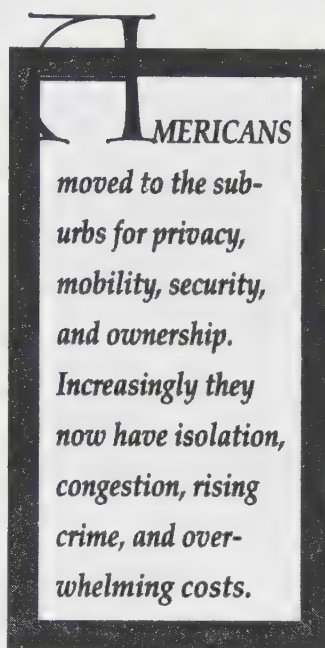
There is a fine but important difference between tradition and nostalgia. Traditions are rooted in timeless impulses while being constantly modified by circumstance. Tradition evolves with time and place while holding strongly to certain formal, cultural and personal principles. Nostalgia seeks the security of past forms without the inherent principles. The current archi-

tectural interest in the classic American town can tilt toward profound and meaningful principles or merely color suburbia with an old-time style. The difference is in the quality and skill of adaptation.

The New Metropolitan Region

REGIONS WITH HIGH growth demand have several fundamental development choices. As is the present standard, towns and suburbs surrounding the metropolitan center can be allowed to balloon out in the typical sprawl patterns. Ideally, growth can be accommodated by locating it in redevelopment and infill locations. Or new towns can be planned within reasonable transit proximity to the city center. Finally, one may attempt to limit overall growth. Such limitations, when they succeed, often spread development into more remote areas receptive to piecemeal projects, increasing commuting distances and creating the ubiquitous hopscotch land-use patterns. Unfortunately, the most common strategy is to allow the spread of existing suburbs and towns, resulting in sprawl, traffic, and a loss of identity for what may have been distinct neighborhoods, villages and towns.

Infill and redevelopment should always be a component of any region's growth policy, but to expect such sites to absorb the majority of new development is often unrealistic. The quantity of sites is often too small to accommodate large numbers, and the time needed to develop such sensi-





Edges: New communities should have clearly established edges which form greenbelts around urbanization. These edges should use and respect sensitive habitat, openspace, or agriculture. Each new community should be made distinct by its greenbelt.

tive sites is sometimes prohibitive. The impact of NIMBYs is also having a profound restraining effect on infill development. We all want infill projects to prevent sprawl, but we rarely support them in our own neighborhood.

If planned well, new towns can help structure a metropolitan region by absorbing growth, supporting transit, and creating greenbelts. If truly transit-oriented, new towns can relieve the regional highway system, improve air quality, and support an often-underutilized rail or bus system. Time after time it has been demonstrated that an effective transit system helps to invigorate the downtown. Portland's new light-rail system has been credited with the phenomenal regeneration of its downtown, bringing both jobs and new retail activity to the urban core. Public transit always focuses on the central business district and delivers people, not cars, to the heart of a city. This reduces the need for parking structures and obviates destructive urban freeway projects. Adding more sprawling suburbs to a metropolitan fringe increases pressure for parking and freeways downtown while it competes with the city for jobs and retail

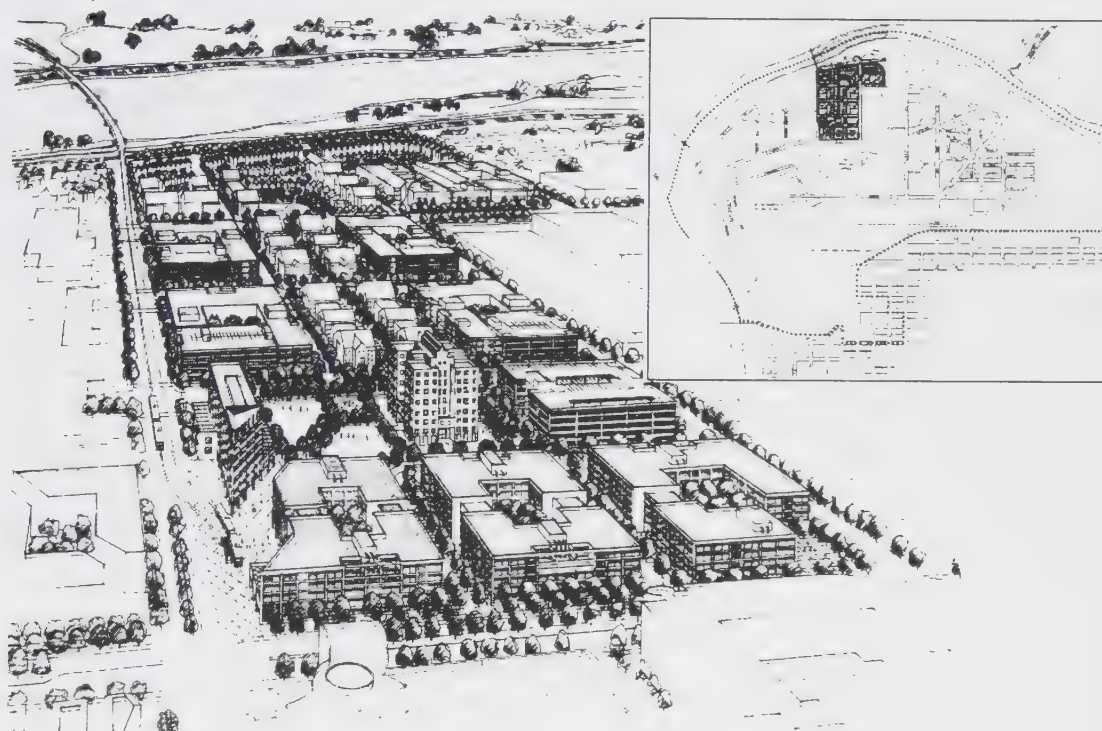
activity. Transit-oriented new towns reinforce the city's role as a region's cultural and economic center.

Greenbelting should always be part of the growth strategy for both new towns and the larger metropolitan region. The two are complementary; a new town can provide greenbelts for the metropolitan area at the same time it buffers its own edges. Failure to use greenbelts with new towns means a fast-growing region will continually expand into the nearby natural edges of open space. Establishing new towns with greenbelts will break the continuous expansion of suburbs.

But modern new towns have a bad name. In Europe, with some notable exceptions, they are sterile and suburban. In America they are sterile, suburban, and (even worse) economic failures for the first twenty years. Are these qualities inherent in new towns, or a result of a dysfunctional design philosophy? After all, our favorite cities and towns were all once new. Is it just time that transforms a new town into a diverse and complex city? Or is it the nature of current economic forces, the technology and sociology of the times,



***Infill for a City:** In an 51-acre, underutilized industrial section of downtown Sacramento, a mixed-use redevelopment plan is proposed. Located along a new extension of the light-rail line, the project would mix jobs for 6,800 people with 916 townhomes and apartments, 54,000 square feet of retail space, and a hotel. The heart of the project is an "around-the-clock" transit stop that opens onto a major pedestrian plaza lined with retail shops, restaurants, services, and a hotel. Small public plazas and parks are located along the pedestrian spine that links the housing with the transit stop.*



and the design of the plan which inhibits or enhances a successful maturation? Certainly the history of planning as it has evolved in this century plays a great role in this question.

At the turn of the century, and again during the Great Depression, the theory of new towns evolved in several directions. Ebenezer Howard and the Garden Cities movement defined a Luddite's vision of small towns, built for workers, surrounded by greenbelts, combining the best of city and country. These towns were sited around rail stations and combined Romantic and Beaux Arts urban traditions with powerful civic spaces surrounded by village-scale neighborhoods. In the same period, Toni Garnier developed the first modernist approach to town planning, segregating industry from housing and freeing buildings

from the street. During the Depression, Le Corbusier and Frank Lloyd Wright expanded the vision in both cities and suburbs while retaining fundamental modernist principles — segregation of use, love of the auto, and dominance of private over public space. The street as the habitable common ground of the community began to disappear. Even in the most progressive of the post-World War II new towns, these basic modernist postulates have compromised, if not destroyed, the ability of these areas to evolve into vital urban communities.

It is hard to pin down the difference between suburb and "new town" these days. Suburbs are acting more and more like modernist new towns; they have jobs, retail, recreation, civic services and a diverse population. They also have the placeless quality of most new towns. And when you study



the planning procedures required of suburban "masterplanned communities" and "specific area plans," they resemble intentional new towns in scale, effort, and conception. But they are not *real* towns and probably never will be. Both suburbs and many modern new towns lack the fundamental qualities of real towns — center, edge, integrated diversity, and clear public space.

Pedestrians are the catalysts for healthy communities; they make these essential qualities of towns — center, edge, diversity and public space — meaningful. They are the lost measure of community, setting the scale for center and edge. They create the place and the time for the casual encounters that provide the connections and integration within diverse communities. Without pedestrians a city's common ground — its parks, plazas and sidewalks — become useless obstructions to the car. When this happens, an area's focus can easily be disaggregated commerce and civic functions easily separated into distant chain-store destinations and government centers.

The essential qualities of towns are absent in virtually all contemporary growth patterns, regardless of the context. Infill urban sites, new suburban development areas, masterplanned communities, and new towns all fail when planned without them. Urban infill sometimes succeeds because the qualities of diversity, clear public space, and a qualitative center pre-exist and need only be honored, not necessarily created. Nevertheless, many infill projects succeed in destroying these pre-existing qualities. Modern suburbs and new towns typically lack real centers, definitive edges, or significant public spaces. They have diversity in use and user, but the diverse elements are segregated by the car. They have none of the casual and spontaneous human interaction that creates vital neighborhoods, quarters, or towns.

The special qualities of place are easily blurred by the speed and isolation we feel in cars. Although pedestrians will not displace cars anytime soon, their absence in our thinking and planning is the fundamental source of the failures of infill and new growth areas. Plan as if there were pedestrians and we may allow kids, the elderly and others to walk again. Plan for pedestrians and we can transform suburbs into towns, projects into neighborhoods, and networks into communities.

In a sense we should be building towns in all growth areas

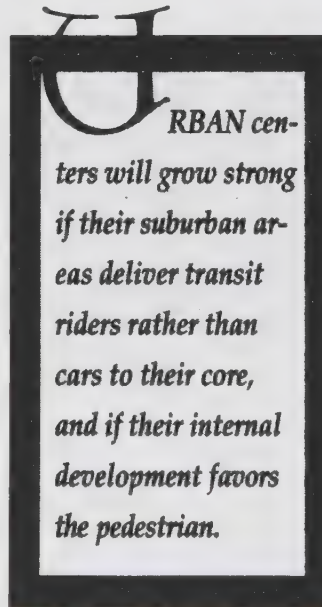
— infill, suburbs, and satellites. In each context the quality of development should follow the same town-like principles: housing for a diverse population, a full mix of uses, walkable streets, positive public space, integrated civic and commercial centers, transit orientation, and accessible open space. For urban infill, such development can become "new-town-in-town" designs for large parcels, such as Mission Bay in San Francisco. For smaller infill parcels, the task is to complete the mix of a community while honoring the unique qualities of the place. Lower-density, mixed-use neighborhoods can be developed for suburban infill sites with similar principles. These sites are fundamentally the same as new towns except they are smaller, lack the capacity for major greenbelts, and must respond to the idiosyncratic qualities of the surrounding community.

Disaggregated sprawl is destructive wherever it occurs —

as infill, suburban growth, or new towns. Projects that are diverse, centered, and walkable are useful in all areas. The specific nature of a metropolitan region will dictate which of these growth areas is appropriate; its rate of growth will indicate how many are needed. Regions with a very slow growth rate may only need incremental infill. Regions with rapid growth and much skipped-over suburban land may need urban infill and new suburban projects. Other regions may need development in all three areas, including new towns, to absorb massive growth without destroying the identity of existing small towns and urban centers. The quality of development we allow, not necessarily its location or size, is the principal problem and opportunity of growth.

These are the design challenges of creating the post-suburban metropolis: to develop a regional growth strategy that uses infill and new growth areas

to reinforce transit, community, and social diversity; to create an architecture that reinforces public space without sacrificing the variety and character of individual buildings; to create a planning approach that integrates the pedestrian into mixed-use, livable neighborhoods; to see the environment as an asset rather than a limit to human settlement; and to evolve a design approach that is capable of accommodating modern institutions without sacrificing human scale and memorable places. These are challenges of greater difficulty (and potential grandeur) than the current struggles between environmentalists and developers, between regional interests and neighborhood activists. They are challenges of real consequence. ☛



A Transit-Oriented Approach to Suburbia



Calthorpe Associates

Rendering of village green at South Brentwood Village in Brentwood, northeast of Oakland, Calif.

Laguna West In Sacramento Excites Planners

By MORRIS NEWMAN

SACRAMENTO, CALIF.

Four busloads of California city planners — about 180 of them — recently traveled to a flat, windy plain 11 miles south of this city to tour Laguna West, which has been touted as the next evolutionary stage of the American suburb.

While home building has just started at the 1,000-acre subdivision, the planners could see the outlines: a designated site for a transit station, surrounded by land soon to be filled with stores, commercial buildings and a day-care center, all within walking distance of about 3,400 planned homes.

Laguna West was created by a novel coalition of developers, government officials and nontraditional planners. It is a pilot project to see whether home buyers will accept a new idea of suburbia, intended to encourage pedestrian movement, social interchange and a sense of place more typical of traditional cities than of postwar suburbs.

Much is riding on the success of what local planners call "transit-oriented developments." County planners are trying to control growth in an exploding region; environmentalists are trying to concentrate growth in small areas in an effort to prevent sprawl and preserve open space. And home builders are seeking a politically acceptable formula at a time of growing antidevelopment feeling.

In large part, Laguna West embodies ideas of Peter Calthorpe, a 42-year-old London-born architect and planner who grew up in Palo Alto and saw that city's quick growth in the 60's. He has won recognition for his

elegant plans, which echo the 19th-century Beaux-Arts movement, and his critiques of suburban life.

Mr. Calthorpe, who calls himself a reviver rather than an originator of ideas and "an ecologist first and a designer second," has his own firm, Calthorpe Associates, in San Francisco. He says he is "cynical about architecture purely as a formal exercise outside of culture and economic conditions."

He is applying a similar integration of transit, housing and commercial buildings in the 140-acre South Brentwood Village project in Brentwood, 25 miles northeast of Oakland, and at the 1,800-acre Dry Creek Ranch subdivision, 10 miles north of Sacramento.

Mr. Calthorpe has been particularly critical of suburbia as a car-oriented environment that discourages human interaction. In a 1988 essay in "Pedestrian Pocket Book: A New Suburban Design Strategy" (Princeton Architectural Press, \$9.95), he says that a "profound mismatch" between the suburbia of the last 40 years and the needs of current society "is generating traffic congestion, a dearth of affordable and appropriate housing, environmental stress, a loss of open space and life styles that burden working families and isolate the elderly and singles living alone."

He says he especially dislikes suburbia's tangle of spaghetti-like streets and cul-de-sacs that lack orientation and circulate poorly. Much of the impetus behind transit-oriented developments, or "pedestrian pockets," as he calls them, is to get people out of their cars, at least those who want to. Transportation engineers say suburban households typically generate 10 automobile trips daily.

"In our time," Mr. Calthorpe said in an interview, "housing production occurs on a mass scale, so we must work with that." His ideas, he added, "are not for a small elite."

In the pedestrian pockets concept, a rational street system replaces the "spaghetti." Often, streets converge on a neighborhood

center, including a transit station. The center offers a supermarket and other neighborhood-oriented stores and services.

Mr. Calthorpe's idea of community revives some traditional, if neglected, ideas in home design, as well. Front yards become shallow as houses are pushed forward to line the street; in Laguna West, each house is to have two trees — there will be 20 species of disease- and drought-resistant trees, one species to each block. This will eventually provide a continuous canopy of shade under Sacramento's relentless sun.

Front porches on at least half the houses will provide a public face to private housing. The streets themselves are narrow to slow down traffic and are punctuated with "tree wells" — concrete-walled planters — that protrude two or three feet into the line of traffic and serve as parking dividers.

Garages, which typically bulge forward in recent suburban homes, are pushed to the side of the house, well behind the front facade, or can be entered through back alleys in some cases. Home buyers also have the option of buying rental units or so-called "granny flats" atop garages. Mr. Calthorpe says the strategy provides another type of affordable housing while counteracting the insularity of suburban life.

Instead of cul-de-sacs, Mr. Calthorpe provides through-streets, sometimes creating urban centers where diagonal streets meet.

"The goal is to provide multiple pathways that lead to the same place," he said. "The notion of a center is reinforced by the formal pattern."

Phil Angelides, president of River West Development of Sacramento and one of three partners in the Laguna West land development, hired Mr. Calthorpe in 1989 after hearing him speak. Shortly after that Mr. Angelides scrapped the original plan for Laguna West, which had already completed a lengthy approval process, and started anew.

Mr. Angelides, who was a housing advocate in the administration of Gov. Jerry Brown in the 1970's, contends that he could

have readily sold homes in a conventional subdivision.

"There was no economic incentive for us to change the plan," he said. "But we wanted to do the right thing."

The final plan of Laguna West is unusual in its mix of housing, from three-to-an-acre custom homes perched on the waterfront to 30-to-an-acre apartments. Prices for production housing are to range from \$135,000 to \$280,000, while homes on custom lots may cost up to \$700,000.

In October 1990, Mr. Calthorpe was hired by Kaufman & Broad of Northern California, an affiliate of one of California's largest home builders, and surrounding landowners to design the Dry Creek project. His ideas have achieved a sort of semi-official status with Sacramento County officials, who are rewriting the county's general plan using his ideas as guides.



Calthorpe Associates

Model of planned community, Laguna West, outside Sacramento, Calif.

"People here do not want Sacramento County to be like L.A. or San Jose," that is, a limitless sprawl, said Thomas Truskowski, a senior planner for the county. "We needed to abandon the business-as-usual approach to home building. We are trying to bring together those places that we use the most: the places where we shop, where we work and where we recreate."

Not all people find the pedestrian-pocket concept convincing. Some shopping center developers and merchants, in particular, seem unwilling to depart from the successful L-shaped shopping center in favor of buildings lining miniature boulevards.

Local home builders are also hesitant to endorse the transit-oriented development concept.

"The Calthorpe approach is untested," said Kim Dellinger, a lobbyist for the Building Industry Association of Superior, Calif., a home builders' trade group. "For the home builder, it is a big risk."

Mr. Calthorpe, however, said homeowners bought into existing suburbia because they had no choice. The old subdivisions, he said, "were a self-fulfilling prophecy."

Mr. Angelides, the home builder, said he believes that the market, not ideology, will have the last word.

"The risk is genuine," he said. "If Laguna West sells, all the home builders will want to build similar projects." But if the concept fails to attract buyers, he added, "they will become gun-shy."

Suburbia Without Sprawl

By John King

AMERICANS FLOCKED TO THE SUBURBS IN THE years following World War II, racing to escape the crowded city streets. Tract after tract of residential development sprawled the countryside—a freeway drive away from commerce, away from manufacturing, away from each other. Millions of people in the middle class made the move to that detached home with its manicured yard. It was the American dream. But Peter Calthorpe thinks it's time for a change.

Calthorpe aims to rein in suburban sprawl. Instead of building enclaves dedicated to segregation—segregation by income level, segregation by age, segregation of work from home and of home from shopping—this forty-year-old Sausalito architect wants to blend things in a way that strengthens each element. For nearly a decade, he has touted what he calls “pedestrian pockets,” where new housing is clustered around mass transit and neighborhood stores the way it was in the late nineteenth and early twentieth centuries.

Simply put, Calthorpe wants to redesign the American dream.

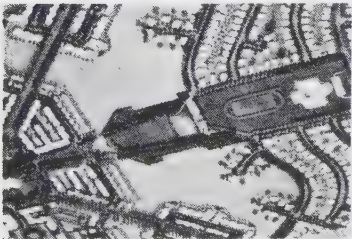
Lofty ambitions for a man who dropped out of graduate school at Yale, got his start designing houses, and now lives on a small houseboat with an outdoor Jacuzzi. But Calthorpe is hopeful

that people want more out of suburbia than vaulted ceilings and bathroom suites. “Cynics say the way things are is an expression, through the marketplace, of how people are,” he says. “I don’t believe that. People don’t want to lead isolated lives. They just haven’t been given an outlet for anything else.”

One Northern California outlet—and the first big test of Calthorpe’s ideas—is Laguna West, an 800-acre project south of Sacramento. Laguna West will contain 3350 housing units, 110 acres of open space, a “town center” of shops and offices, and a “village green” with day care, a library, ball fields, and play areas, plus a town hall-like community center. Site work began last spring, and half the lots are already sold. The project is slated to be finished in 1994.



Peter Calthorpe envisions a new American dream suburbs without sprawl



A model for Laguna West, Calthorpe's Sacramento project.



Architect Peter Calthorpe says the future of suburban growth lies in taking a tip from the past.

"This is not some upscale, precious, trendy development," Calthorpe points out. "Sacramento's a straight-ahead, middle-American kind of place. If the pockets work here, they'll play in Peoria." Or in Florida or Washington. Calthorpe's San Francisco-based firm is currently working on pocket projects in those states and nationwide that total forty thousand acres and may someday house a quarter of a million people.

Laguna West typifies the concept. At the project's hub, 1500 apartments and townhouses, and 1850 single-family homes frame the commercial area and the village green. Apartments (from one to three bedrooms) would probably range from \$500 to \$1000 a month. Townhouses would go for \$125,000 to \$150,000, and production homes would cost between \$155,000 and \$250,000.

A large artificial lake occupies much of the development's open space. Also planned is a light-rail stop that, like the shops, would be no farther than two thousand feet from any of the higher-density units. In the detached housing area, the streets, which lead to the town center, are narrow and shaded, partly to evoke Sacramento's heritage and partly to slow down automobiles.

Calthorpe's approach is nothing new; American planners and social theorists have expounded such ideas, without success, almost since the exodus to the suburbs began. The difference is that Peter Calthorpe may make it happen.

UNTIL A YEAR OR SO AGO, PETER Calthorpe was virtually unknown outside a small coterie of fellow architects. While a state employee during the seventies, he gained some attention for his work on passive solar energy, but that sensibility fell from public favor in the eighties. In the tradition of countless would-be visionaries before him, Calthorpe retreated to academia, where he taught design courses at UC Berkeley and wrote the occasional article.

Increasingly, those articles dealt not with solar energy, but with his vision of tight clusters of development where retail space and offices would mix with a variety of residential units.

The vision harkens back to the late nineteenth century, when railroad

lines allowed commuters to leave the city behind, but the automobile as mass transit did not yet exist. Then, train stations would be built every few miles, with houses all within quarter-mile walking distance, and retail districts and often a factory or two situated by the stations.

"People have talked about these ideas for decades," Calthorpe admits. "All that's new about pedestrian pockets is that we're designing them so they can be assimilated today."

As part of that design, Calthorpe's 1989 informational pamphlet explains, "The Pedestrian Pocket is a concept for some new growth; it is not intended to displace urban renewal efforts, and it will certainly not totally eclipse suburban sprawl. It will, however, extend the range of choices available to the family buying a home, the business seeking relocation, the environmentalist hoping to preserve open space, and the existing community attempting to balance the benefits and liabilities of growth."

"He's an idealistic guy on a mission right now," says friend and colleague Doug Kelbaugh, chair of the University of Washington's department of architecture. "Peter is a utopian at heart, but pedestrian pockets aren't too utopian. He's hit the nail on the head."

At speeches where he tries to sell his vision, Calthorpe is witty, lucid, and persuasive, sounding at once fervent and practical. Dressed usually in black, or in fashionably baggy gray trousers, and sporting hip round glasses, he will harangue audiences on the negatives of suburban sprawl: people spend more of their disposable income on cars than food, for example, and fully 40 percent of automobile trips now are from suburb to suburb, while only 20 percent are from suburb to city. And despite the limitless vanity of suburban tracts, where turrets and three-car garages make new homes look as if they're pumped up with steroids, society isn't being served—only 27 percent of the new households in the eighties consisted of married couples. The remainder were single adults (mostly the elderly) and single parents. So who needs the space?

"The notion of creating real places is the challenge of the nineties," he insists. "The whole structure of our suburban environment has to be re-

thought."

A self-described child of the sixties, Calthorpe coauthored a book on geodesic domes when he was twenty. He remains a disciple of Buckminster Fuller, who argued that everything must be studied for how it plugs into larger systems. Discussing his pocket theory in the abstract, Calthorpe sees it as a way to transform development into something constructive, socially as well as environmentally.

Laguna West started life as the final phase of the eight-thousand-acre Laguna Creek, a basic suburban tract with big homes on fairly big lots, roads that wind absently past a procession of cul de sacs, and the occasional retail shopping strip. While Laguna Creek made money for partners AKT Developments, River West Developments, and Lexington Homes, it also contributed to the sprawl that gives Sacramento a serious air-pollution problem.

By the time the last phase was ready to start, Sacramento environmentalists were lobbying developers to change their ways and build housing adjacent to mass transit lines (existing or planned) and stay away from farmland. They caught the interest of River West developer Phil Angelides, a former housing aide to Jerry Brown. Angelides asked for names of planners, held a competition, and selected Calthorpe to design the final phase.

Calthorpe calls Laguna West "a hybrid, a blend of old-town qualities with the needs of modern lives and businesses. If Laguna West is successful, more opportunities will arise. And they can be met in a way that's more ambitious."

Calthorpe's knack is that he presents his ideas so they sound pragmatic, not just idealistic. "He still has his verve, and he still has his principles," says David Mogavero, past president of the Environmental Council of Sacramento and a longtime friend. "How he's changed in the past decade is there's more of a willingness to compromise. He realizes you have to do as much as you can right now—to get the train out of the station, and begin having an impact."

"I don't think of Peter as an academic. He has a practical side to him," agrees Peter Kanavos, president of Flag Development Company, which has hired Calthorpe to plan an immense

new ten thousand-acre town in Florida. "This is the most chic topic in planning circles today, but few architects grasp what it takes to apply the idea to real life."

BORN IN ENGLAND BUT RAISED IN PALO Alto, Calthorpe's life has revolved around planning and architecture since he was an adolescent.

"From Skyline Boulevard I could look into Silicon Valley and see the pollution," Calthorpe recalls. "I felt sprawl was really destructive to the environment. I also had an ongoing notion that an environmentally benign society would be socially robust."

After obtaining his undergraduate degree at ultraliberal Antioch College in Ohio, he entered a graduate program in architecture at Yale in 1973, when academic postmodernism was gaining strength. "Here I was, a renegade of the sixties, confronted by the worst of the East Coast architectural establishment," says Calthorpe. "Architecture was seen as packaging and marketing, not as what it is—the vessel of our social and technological structure." The conflict eventually caused him to drop out eighteen months later.

He headed back to California—sans graduate degree—and found work first at the Farallones Institute, a research center with organic leanings founded by Sim Van der Ryn, a highly regarded designer. When Van der Ryn was appointed California State Architect during Jerry Brown's first term, Calthorpe worked as a junior architect in the state Office of Planning and Research, specializing in solar design work.

Van der Ryn and Calthorpe left Sacramento in 1978 to set up their own shop in Inverness in Marin County. They joined the debate over how to use the old Hamilton Air Force base and proposed a development based on sustainability. In what they called the Marin Solar Village, tracts of land would be devoted to agriculture, energy production, and organic sewage treatment facilities. But the idea was defeated narrowly in a countywide election and by one vote at a county supervisors' commission meeting.

Calthorpe and Van der Ryn parted ways two years after the Solar Village idea died. Neither man talks much about the dissolution: Calthorpe sug-

gests that Van der Ryn was more philosopher than businessman, while Van der Ryn says of Calthorpe, "I respected his intelligence and ability, but found him a difficult person to work with. . . . Peter has definitely shifted into planning, which is his stronger skill. I'm more interested in environmental architecture, green architecture."

Van der Ryn also suggests that much of the pedestrian pocket concept is an outgrowth of their work on the solar village. "His basic shift was from concern for energy to concern about congestion, convenience, and wasteful land use," Van der Ryn says. "The reason for his success, I think, is a combination of persistence and luck. There's nothing new about the issues, and not much new about the solutions."

A MORE SUBSTANTIVE CRITICISM OF Calthorpe's theories is that they're just an elegant way of packaging sprawl. In other words, developers will use the buzzwords as a way to legitimize business as usual. They'll still be pouring homes and shopping centers over land that shouldn't be touched.

"We've seen some of that," admits Robert Sherry, a principal planner for the city of Sacramento. "Developers will pull out a few select components, maybe landscape a bus stop, and say 'Hey, I've got a pedestrian pocket.'"

Some environmentalists support the pedestrian pocket concept as a way to plug holes in places like Oakland and San Francisco. Beyond that, they're skeptical.

"He's making the case that one should have concentrated development around transportation hubs, and that's beneficial," says Larry Orman, executive director of the Greenbelt Alliance, an active opponent of suburban sprawl. "It's a particular idea that on a few sites makes sense."

Daniel Solomon, a San Francisco architect who has worked with Calthorpe on the pocket concept, agrees that there are dangers. "Pedestrian pockets should be used as infill, to reclaim suburban areas," such as out-of-date strip shopping centers, Solomon says. "If it becomes an incentive to leapfrog over underdeveloped land, that's a serious negative."

Calthorpe bristles at such notions, pointing out that the core of his idea is that communities must grow up around

either rail or bus lines: "Light rail lines are not going to skip into open territory. I don't think that inherent in this is a Trojan Horse of sprawl at all."

Even so, most of his work so far is on a grand scale and on virgin land.

The largest project is in Florida, where Flag Development has Calthorpe designing a ten thousand-acre community near Tampa. The project (still in the permit process) consists of six villages—each with a different focus—twenty thousand units of housing, and four thousand acres of preserved wetlands. Eventually it would include major employers and shopping complexes.

Flag also has a project under way near Orlando with planners Andres Duany and Elizabeth Plater-Zyberk. Even more than Calthorpe, the couple are the center of the push toward what they call "neo-traditional development." Calthorpe may have received favorable press from *Progressive Architecture* and *U.S. News and World Report*, but Duany and Plater-Zyberk made *People*. Their most famous project is Seaside, an elegant resort village on Florida's Gulf Coast where footpaths and front porches are emphasized, not the garage or backyard.

According to Peter Kanavos, Flag's president, the difference in styles is that "Andres tends to be a little more purist, defining everything down to the last detail. Peter has a little more flexibility. He's more in tune with public transportation issues and pays more attention to retail and how it fits in."

The University of Washington's Doug Kelbaugh compares the two in a different way. "Duany and Plater-Zyberk are coming from the right. Peter's coming from the left." Kelbaugh feels that many of the Duany/Plater-Zyberk towns will be pitched to wealthy buyers. "Calthorpe wants to have mass impact," he says.

ONE WAY TO HAVE MASS IMPACT IS through big projects. The other is through government, to lay down the rules that developers must follow. Calthorpe is doing both in Sacramento. Besides executing a number of private commissions in the city, his firm drew up a new housing classification for Sacramento County's general plan: Transit Oriented Development.

While TODs may sound arcane,

they'll have profound impact: some growth would be allowed to expand out of the urban core, but only along transit routes—and only if there's a mix of housing types, from low-cost apartments to single-family houses. Considering that the county population of one million is expected to grow more than 50 percent in the next twenty years, Calthorpe's revisions could have enormous influence if they're adopted.

But if Calthorpe is reshaping the landscape to the east—and to the north in Washington, where his firm has three projects, including a 6000-home development south of Tacoma—his effect on the Bay Area so far is minimal. He is currently involved in a 550-unit project in Brentwood and is also doing planning work for San Jose. Still, these jobs pale next to Laguna West or TODs.

Calthorpe says he would love to tackle the suburban land around BART stations. He's also interested in Sonoma, where the county may soon purchase a railroad right-of-way. He doubts, however, that he'll get the chance soon.

"I've resigned myself to the fact that the Bay Area is not where innovation will happen," Calthorpe says. "Anti-growth forces are very entrenched. That entrenchment may be well deserved because of past battles, but it mitigates against creative solutions. People aren't looking for common ground; they're drawing lines to do battle in court."

One reason for skepticism lies in Calthorpe's home court, Marin County. Back in 1984, Calthorpe used a National Endowment for the Arts grant to draw up plans for a series of pedestrian pockets for an abandoned rail line between Santa Rosa and Larkspur. Four such pockets, he wrote at the time, would accommodate fifteen years of projected residential growth.

Despite support from several transportation planners, the reception was frosty. It still is. Environmentalists say Marin is already overbuilt, even though 42 percent of the county is publicly owned open space. If there should be more growth, they argue, it should be incremental, within existing downtowns.

Pedestrian pockets "aren't terribly practical as our county is set up today," says Karin Urquhart, executive direc-

tor of the Marin Conservation League. "I don't believe he's looked at the broad picture, frankly."

"Much of the development he's proposed in Marin is wrong," claims Van der Ryn. "It sits on wetlands and floodplains and should remain marshland."

Calthorpe, to put it mildly, disagrees with "myopic well-intentioned environmentalists. . . . To them, the only answer is no growth at all." The problem with such a view, he claims, is that development doesn't go away. It just spurts out somewhere else, as in Sonoma to the north, necessitating longer commutes.

The most important critics of all will soon have their say. At Laguna West, homebuyers will show whether there is a market in the suburbs for dense, city-like communities, whether people really have missed front porches all these years, and whether they'd just as soon walk as drive to the local store.

After all, there are solid reasons for why suburbia has plowed ahead these past forty years, impervious to all criticism. Tens of millions of Americans define success as a free-standing home, and define freedom as the ability to roll their car out of the driveway whenever they want. Home isn't a castle; it's a haven from the real world, from every chance encounter that might bring annoyance.

Certainly, hundreds of thousands of suburban kids moved back to cities in the seventies and eighties—but millions remained behind, perfectly content. If there's unrest now, what annoys people may not be sterility or sameness, but rather the fact that they can't shoot across town anymore without hitting traffic.

In this light, Calthorpe's achievement is astounding: he has convinced developers that a profitable number of suburbanites will trade some of their splendid isolation for the old-fashioned joys of small yards and short walks. And that they'll even pay good money for a townhouse just yards away from apartments and shopping.

"You can be angry about the way things are, and rage against it, but until you offer alternatives you aren't doing much," Calthorpe shrugs. "My mission is to present viable alternatives. After that, I have to trust the basic intelligence of our culture." ●

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A suburb for people, not cars

Traffic jams and dirty air have soured California's affection for the automobile. Reducing auto trips has become an imperative of policy-making at the state Capitol and local government chambers around the state. But how to curb auto use in a state where most of the jobs and housing are being created in suburbs, places notoriously auto-dependent? The new community proposed for west Laguna Creek may be part of the answer.

AKT Developments and River West Developments are asking the county to let them junk their plans for a traditional suburb on 800 acres in Laguna in favor of an imaginative townlike development designed by Peter Calthorpe, a Bay Area architect and planner. The proposal breaks many of the accepted rules of California suburban development. Instead of rigidly separating the land uses of a typical suburb — single family homes, neighborhood stores, office buildings, apartments — the plan concentrates them around a town center, which has a community center and a park. Instead of building all of the houses in mazelike "villages" that have no through streets for autos or pedestrians, it calls for streets that lead toward the town center, the schools and

parks, and for cul-de-sacs with walkways that cut through to the next block.

Because the population density of the development will be concentrated near the town center, most of the residents and workers will be within easy walking distance of a planned transit stop — for buses, downtown commuter express buses and, perhaps one day, light rail — and of neighborhood stores and services. The hoped-for result is a community where residents and visitors don't automatically have to climb in a car to buy a loaf of bread, rent a video, take a kid to gymnastics class or go to work.

By the standards of conventional suburban planning, the proposal for west Laguna Creek looks like a departure. But the ideas behind the plan are hardly radical; the designs echo the best attributes of the towns and graceful residential neighborhoods built in pre-World War II America. All over the country, home buyers are flocking to those places, paying a premium for older homes in places where they are close to work, shopping and recreation. The plan for west Laguna Creek is an exciting sign that developers, after four decades of building dull, auto-bound suburbs, are hearing the message. County officials should hear it, too.

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